CONTEC

Technology for a better life

INDUSTRIAL PC
PRODUCTS CATALOG

for Global Market Ver. 2.0

www.contec.com

Improving Lives Around the World Through Contec Technologies

Contec established its expertise in highly reliable technology with electronic devices for factory automation. Leveraging this knowledge and proficiency, we have expanded into environment & energy, healthcare, transportation, and digital signage industries.
We strive to improve your daily life through creative technologies and products.

Our Management Philosophy

Contribute to society with creative technology and products

Corporate Slogan

Technology for a better life

Our Products

Three Core Technologies

Industrial/Embedded Computing

High Performance, Long-Life, Ultra Compact

Data Acquisition (DAQ), Measurement and Control

USB, Analog & Digital I/Os, PCI/PCI Express Boards, Accessories & Cables

Communication, Industrial LAN & Wireless

Wireless Modules, Switching Hubs, Communication HD & SW, LAN & Ethernet Converters

Solutions & Services

Integration Support Services

Expanding Our Solutions

Solutions for New Markets

New Product Introductions

New Core Technologies

Global Network

Taking “Contec Quality” Global

Contec’s global presence consists of multiple R&D, Manufacturing, Sales & Procurement locations that strategically placed around the world. The Contec network allows us to instantly meet our customer’s needs with quality products and solutions.

Japan

CONTEC CO., LTD.
CONTEC SOFTWARE DEVELOPMENT CO., LTD.

R&D | Procurement | Manufacturing | Sales

U.S.A.

CONTEC DTx INC.

R&D | Procurement | Manufacturing | Sales

China

CONTEC (SHANGHAI) CO., LTD.

R&D | Procurement | Manufacturing | Sales

Taiwan

TAIWAN CONTEC CO., LTD.

R&D | Procurement | Manufacturing | Sales

Singapore

SINGAPORE CONTEC PTE. LTD.

Sales

Manufacturing Automation

Overview

Optimal for automated machines in inspection systems for machinery and electric devices and assembly lines, which are becoming faster and more sophisticated.Models which are equipped with various signal I/O as standard equipment and models accepting measurement control boards for rich expandability are available.

Semiconductor production equipment

Machine control

Motion control / Electronic measurement / Image analysis

Applications

- Semiconductor production equipment
- Inspection equipment
- Control equipment
- Production management

Benefits

- Compact-sized and easy to incorporate
- Function expansion is possible by employing our measurement control boards
- Energy saving

Panel Computer

PT-S1000

See page ▸ P.15

BOX Computer

BX-1000

See page ▸ P.32

BOX Computer

BX-840

See page ▸ P.29

Customized Computer

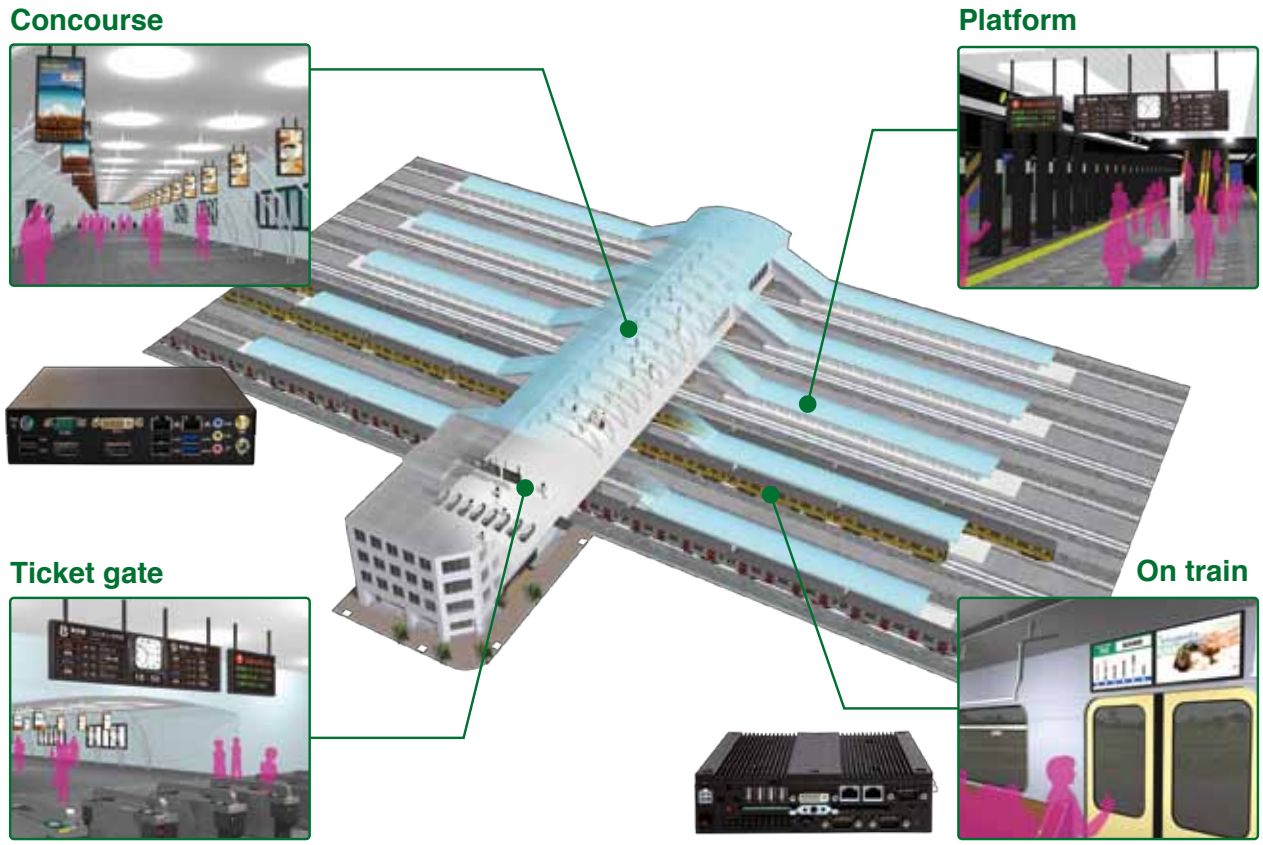
CH101-SBC-W

See page ▸ P.57

Digital Signage

Overview

Equipped with Full-HD compatible digital video output, and its Slim enclosure can be fit at the rear of an LCD or a gap between a wall and furniture. Powerful models suit for video playback, HDD models for large amount of data and ultra energy-saving model, etc. are available. Contec provides a variety of solutions ranging from set top boxes, software components, to network services which are optimal for our customers.



Applications

- Digital signage
- Digital poster
- Facility guides
- Destination guides

Benefits

- Compact-sized and easy to incorporate
- Energy saving
- Extensive lineup for various applications

BOX Computer

BX-S959

See page ▸ P.35

BOX Computer

BX-700W

See page ▸ P.33

BOX Computer

BX-800W

See page ▸ P.31

BOX Computer

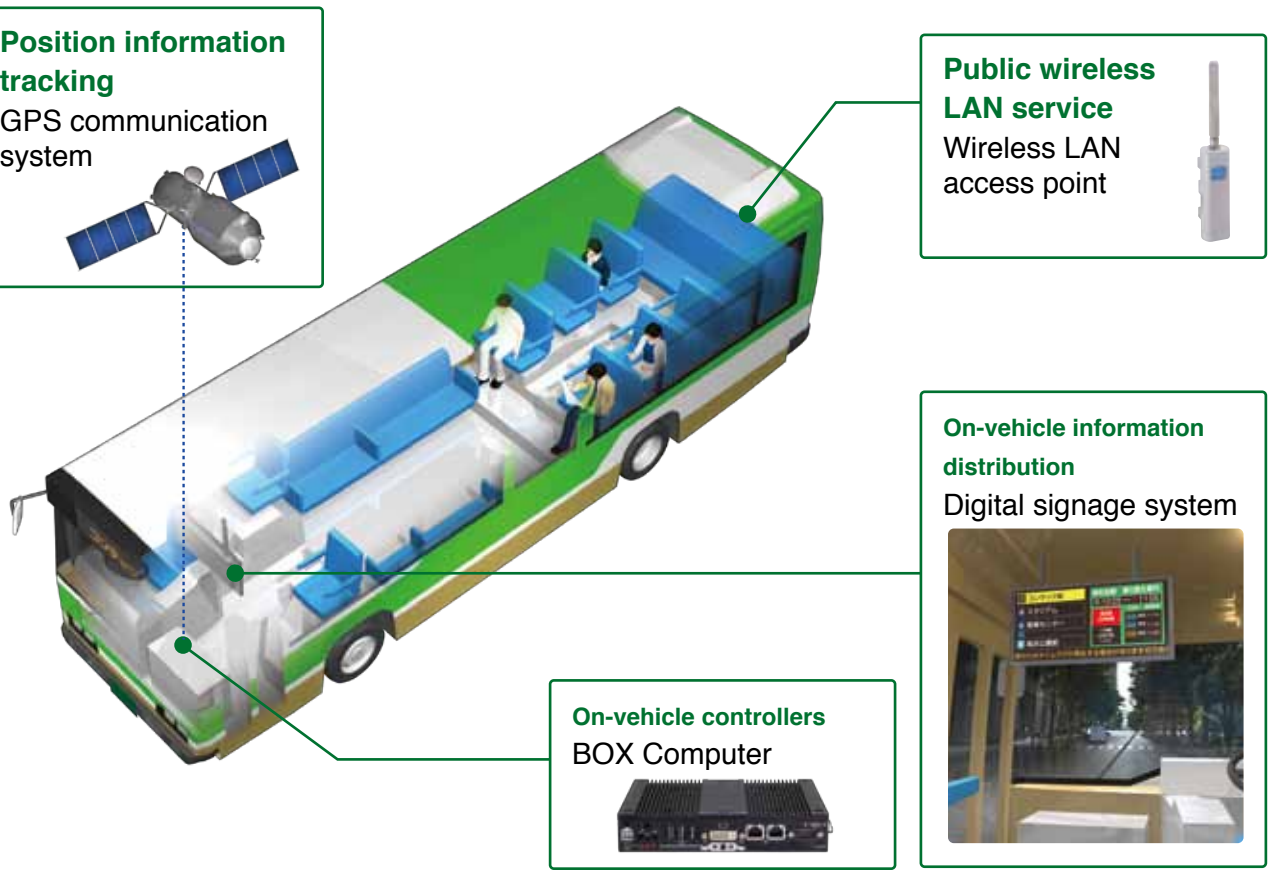
BX-130A

See page ▸ P.34

Automotive Application

Overview

Contec provides products suited for special environments where both high environmental resistance and stable operations are required in wide range of operating temperature: service cars such as route buses and distribution trucks, trains, ships, and forklifts.



Applications

- Vehicle tracking/Monitoring system
- Vehicle maintenance data collection
- Information/Digital signage
- Operation and allocation control system

Benefits

- Compact-sized and easy to incorporate
- Fanless and energy saving
- High environmental resistance

BOX Computer

BX-S958

See page ▸ P.36

BOX Computer

BX-S959

See page ▸ P.35

BOX Computer

BX-800W

See page ▸ P.31

BOX Computer

BX-700W

See page ▸ P.33

Energy Management

Overview

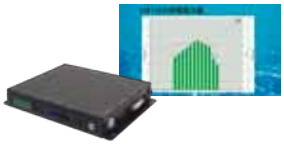
Contec provides embedded controllers and cloud systems for centralized control that are essential for building the energy management systems (EnMS), which include not only the systems for monitoring and visualizing the usage of photovoltaic generation, cogeneration and storage battery, but the system for monitoring/controlling, the energy equipment such as HEMS/BEMS.
We contribute to building systems for energy consumption control.

Building automation

- Demand controller
- Demand monitoring terminal
- Communication gateway
  - BACnet
  - LONWORKS …

Smart energy

- Measurement and monitoring system for energy generation/saving/storage
  - Photovoltaic generation
  - Storage batteries
  - Cogeneration
  - EV quick charger



Applications

- Storage battery/Cogeneration monitoring
- Total energy monitoring
- Air conditioning/Lighting control
- HEMS/BEMS
- EV charger
- Electric power monitoring

Benefits

- Know-how in measuring power-generating capacity/Data accumulation method
- Compact-sized and easy to incorporate
- Capability for designing ARM/x86 controllers

Multi-Controller

MC-300/MC-310

Refer to Contec's Products Catalog

BOX Computer

BX-130A

See page ▸ P.34

BOX Computer

BX-1000

See page ▸ P.32

Panel Computer

PT-S959

See page ▸ P.19,23

Medical Application

Overview

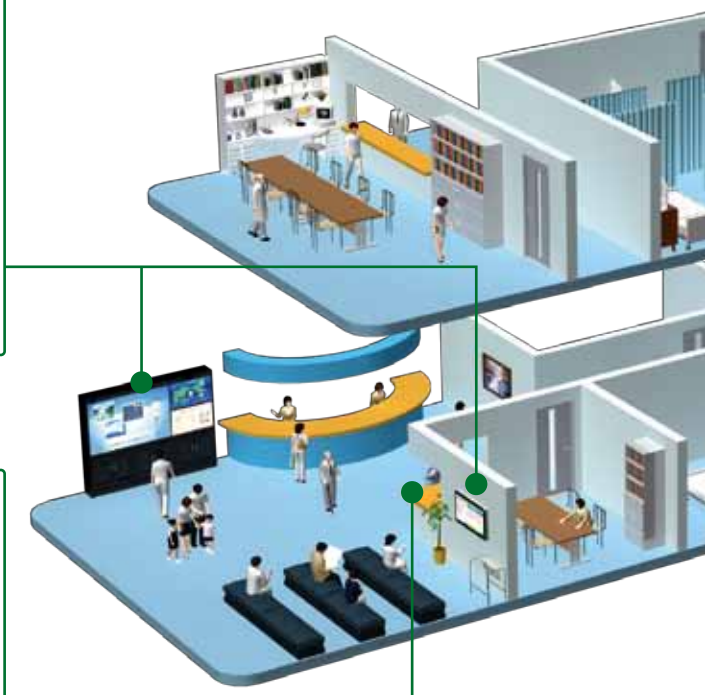
Contec supports medical service improvement and hospital facility upgrades with our ICT products ranging from specific units to integrated systems. For example, we offer bed-side multi-functional terminals to improve inpatient's amenity in their rooms, and information distribution equipment for the waiting rooms and other areas, which is implemented with our digital signage technology. Also, we provide service terminals for X-ray operation, electronic chart browsing, accounting, payment invoice processing, etc.

In-hospital information distribution

Digital signage

Medical care support/Medical business support

Terminals for payment invoice/electronic chart



BOX Computer

BX-700W

See page ▸ P.33

BOX Computer

BX-S958

See page ▸ P.36

Customized Computer

EPC-2020

Refer to Contec's Products Catalog

Applications

- Digital signage
- Terminals for payment invoice processing/electronic chart browsing
- Bed-side information terminal
- Controller for medical and pharmaceutical equipment

Benefits

- Quiet and compact
- Information terminals with TV function
- Fanless and energy saving
- Extensive lineup

Medical and nursing care support/ Amenity for inpatients

Digital information terminal

In-hospital communication networks

Wireless LAN system

Medical and Pharmaceutical equipment

BOX Computer

Digital Information Terminal	BOX Computer	Customized Computer	BOX Computer
DIT Series	**BX-S959**	**CH070-ATX-4U**	**BX-800W**
Refer to Contec's Products Catalog	See page ▸ P.35	See page ▸ P.53	See page ▸ P.31

INDUSTRIAL PC
PRODUCTS CATALOG

CONTENTS

Panel Computers

Computers with touch panel LCDs based on our know-how acquired in developing BOX Computers. There are wide variety of models such as panel mount type, open frame type, and dripproof type compatible with VESA arms.

High-Performance from P.15

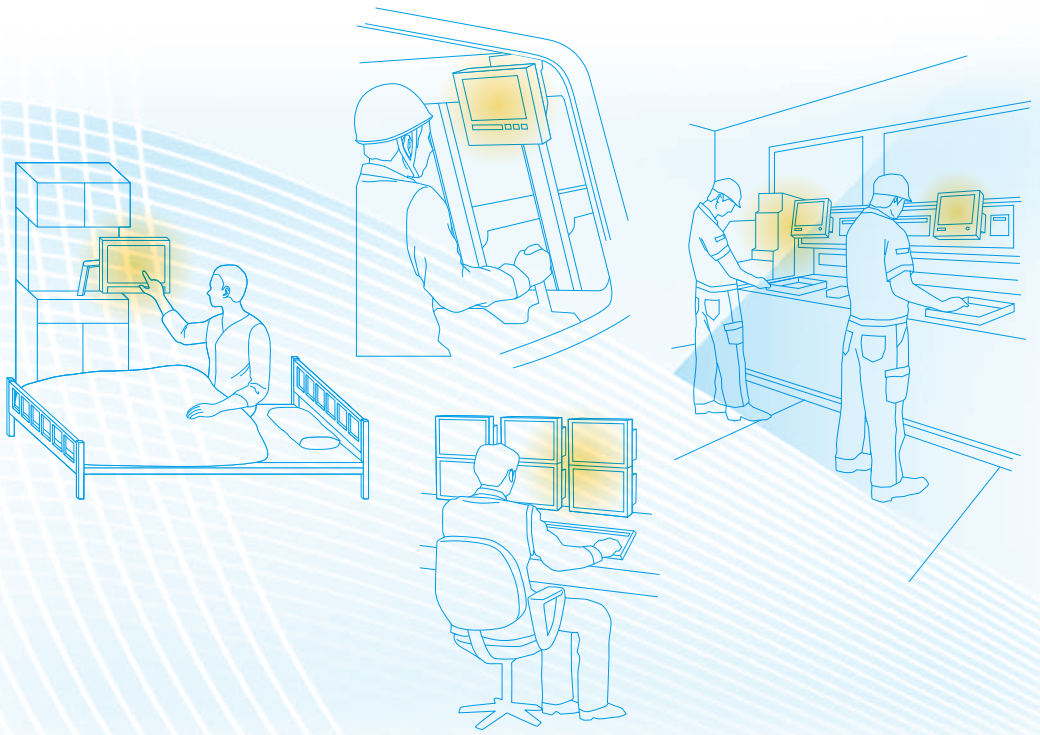
Fanless from P.19

BOX Computers

"BOX Computers" is a reliable brand that is optimally designed for embedded purposes with unique technologies. The long-life design incorporates features such as CPU and chipset for embedded computing. This is an ideal target device for various customer's applications for industrial use.

High-Performance from P.29

Slim & Compact from P.33



Motherboards

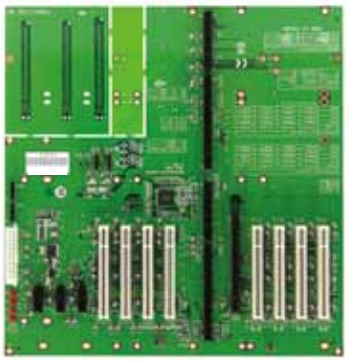
Build-up type industrial computer board with the necessary functions integrated on the board.
It is superior in expandability and maintainability. Please use with a chassis.

from P.39

Backplanes

Used for connecting single board computers (SBC) and expansion boards.
Please use this in combination with SBC and Chassis.

from P.51



Single Board Computers

Combined with backplanes and chassis, you can build systems from space-saving compact systems to multi functional systems requiring multiple expansion boards.

from P.47

Chassis

The base for Contec's "BOARD-PC system" which is built with mother board, single board computer, and storage.
We have several different chassis to accommodate your needs for your installation environment.

from P.53

Contec selects long-life chipsets which are designed for embedded devices, to use in our BOX computers, panel computers, motherboards and single board computers.

Industrial

Selection guide

Panel Computers

Feature	High-Performance		
Model	**PT-S1000XSX**	**PT-S1000XSXP2**	**PT-S1000HX**
LCD panel	17” 1280 x 1024	17” 1280 x 1024	15” 1024 x 768
Installation	VESA 100 x 100mm panel mount	VESA 100 x 100mm panel mount	VESA 100 x 100mm panel mount
CPU	3rd gen. Intel® Core™ Processor (FCPGA988)	3rd gen. Intel® Core™ Processor (FCPGA988)	3rd gen. Intel® Core™ Processor (FCPGA988)
Chipset	Intel® QM77 PCH	Intel® QM77 PCH	Intel® QM77 PCH
Memory capacity	Up to 8GB DDR3 SO-DIMM	Up to 8GB DDR3 SO-DIMM	Up to 8GB DDR3 SO-DIMM
Storage	1x 2.5” SATA bay	1x 2.5” SATA bay	1x 2.5” SATA bay
Serial ports	3x RS-232C 1x RS-232C/422/485	3x RS-232C 1x RS-232C/422/485	3x RS-232C 1x RS-232C/422/485
USB ports	4x USB 3.0 2x USB 2.0	4x USB 3.0 2x USB 2.0	4x USB 3.0 2x USB 2.0
Graphic chipset	Intel® HD4000	Intel® HD4000	Intel® HD4000
Audio	Line-in / Line-out / Mic-in	Line-in / Line-out / Mic-in	Line-in / Line-out / Mic-in
Ethernet controller	1x Intel® 82579LM 1x Intel® 82583V	1x Intel® 82579LM 1x Intel® 82583V	1x Intel® 82579LM 1x Intel® 82583V
Touch screen	Resistive-film analog type	Resistive-film analog type	Resistive-film analog type
Display output	DVI-D / HDMI / VGA	DVI-D / HDMI / VGA	DVI-D / HDMI / VGA
Expansion	N/A	2x PCI slots	N/A
Power input	12V - 24V DC	12V - 24V DC	12V - 24V DC
Page	15	16	17

Panel Computers

Feature	High-Performance	Fanless	
Model	**PT-S1000HXP2**	**PT-S959HX**	**PT-S959HXP2**
LCD panel	15” 1024 x 768	15” 1024 x 768	15” 1024 x 768
Installation	VESA 100 x 100mm panel mount	VESA 100 x 100mm panel mount	VESA 100 x 100mm panel mount
CPU	3rd gen. Intel® Core™ Processor (FCPGA988)	Intel® Atom™ D2550 1.86GHz	Intel® Atom™ D2550 1.86GHz
Chipset	Intel® QM77 PCH	Intel® NM10 Express	Intel® NM10 Express
Memory capacity	Up to 8GB DDR3 SO-DIMM	2GB DDR3 RAM module installed	2GB DDR3 RAM module installed
Storage	1x 2.5” SATA bay	1x CFast sockets 1x 2.5” SATA bay	1x CFast sockets 1x 2.5” SATA bay
Serial ports	3x RS-232C 1x RS-232C/422/485	2x RS-232C 1x RS-232C/422/485 1x RS-422/485	2x RS-232C
USB ports	4x USB 3.0 2x USB 2.0	4x USB 2.0	4x USB 2.0
Graphic chipset	Intel® HD4000	Intel® GMA 3650 Graphics	Intel® GMA 3650 Graphics
Audio	Line-in / Line-out / Mic-in	Line-out / Mic-in	Line-out / Mic-in
Ethernet controller	1x Intel® 82579LM 1x Intel® 82583V	2x Realtek® RTL8111E	2x Realtek® RTL8111E
Touch screen	Resistive-film analog type	Resistive-film analog type	Resistive-film analog type
Display output	DVI-D / HDMI / VGA	DVI-I	DVI-I
Expansion	2x PCI slots	N/A	2x PCI slots
Power input	12V - 24V DC	12V - 24V DC	12V - 24V DC
Page	18	19	20

Industrial

Selection guide

Panel Computers

Feature	Fanless		
Model	**PT-S958HX**	**PT-D2515NL**	**PT-S959LX**
LCD panel	15” 1024 x 768	15” 1024 x 768	12.1” 1024 x 768
Installation	VESA 100 x 100mm panel mount	VESA 100 x 100mm panel mount	VESA 100 x 100mm panel mount
CPU	Intel® Atom™ D2550 1.86GHz	Intel® Atom™ D2550 1.86GHz	Intel® Atom™ D2550 1.86GHz
Chipset	Intel® NM10 Express	Intel® NM10 Express	Intel® NM10 Express
Memory capacity	2GB DDR3 RAM module installed	Up to 4GB DDR3 SO-DIMM	2GB DDR3 RAM module installed
Storage	2x CFast sockets	1x 2.5” SATA bay 1x mSATA socket	1x CFast sockets 1x 2.5” SATA bay
Serial ports	2x RS-232C	4x RS-232C 1x RS-232C/422/485	2x RS-232C 1x RS-232C/422/485 1x RS-422/485
USB ports	4x USB 2.0	4x USB 2.0	4x USB 2.0
Graphic chipset	Intel® GMA 3650 Graphics	Intel® GMA 3650 Graphics	Intel® GMA 3650 Graphics
Audio	Line-out / Mic-in	Line-in / Line-out / Mic-in	Line-out / Mic-in
Ethernet controller	2x Realtek® RTL8111E	2x Realtek® RTL8111E	2x Realtek® RTL8111E
Touch screen	Resistive-film analog type	Resistive-film analog type	Resistive-film analog type
Display output	DVI-I	HDMI / VGA	DVI-I
Expansion	N/A	N/A	N/A
Power input	12V - 24V DC	12V DC	12V - 24V DC
Page	21	22	23

Panel Computers

Feature	Fanless		
Model	**PT-S958LX**	**PT-S959W10**	**PT-S959W10C**
LCD panel	12.1” 1024 x 768	Wide 10.1” 1024 x 600	Wide 10.1” 1024 x 600
Installation	VESA 100 x 100mm panel mount	VESA 75 x 75mm VESA 100 x 100mm	VESA 75 x 75mm VESA 100 x 100mm
CPU	Intel® Atom™ D2550 1.86GHz	Intel® Atom™ D2550 1.86GHz	Intel® Atom™ D2550 1.86GHz
Chipset	Intel® NM10 Express	Intel® NM10 Express	Intel® NM10 Express
Memory capacity	2GB DDR3 RAM module installed	2GB DDR3 RAM module installed	2GB DDR3 RAM module installed
Storage	2x CFast sockets	1x CFast sockets 1x 2.5” SATA bay	1x CFast sockets 1x 2.5” SATA bay
Serial ports	2x RS-232C	2x RS-232C	2x RS-232C 1x RS-232C/422/485 1x RS-422/485
USB ports	4x USB 2.0	4x USB 2.0	4x USB 2.0
Graphic chipset	Intel® GMA 3650 Graphics	Intel® GMA 3650 Graphics	Intel® GMA 3650 Graphics
Audio	Line-out / Mic-in	Line-out / Mic-in	Line-out / Mic-in
Ethernet controller	2x Realtek® RTL8111E	2x Realtek® RTL8111E	2x Realtek® RTL8111E
Touch screen	Resistive-film analog type	Resistive-film analog type	Resistive-film analog type
Display output	DVI-I	DVI-I	DVI-I
Expansion	N/A	N/A	N/A
Power input	12V - 24V DC	12V - 24V DC	12V - 24V DC
Page	24	25	26

High-Performance Touch Panel PC with Intel® Core™ Processor (FCPGA988) 2x LAN, 4x USB3.0, 4x COM

PT-S1000XSX

17-inch | Core i Processor | IP65

Features

- 3rd gen. Intel® Core™ processor (FCPGA988) with high performance
- External DVI/HDMI/Analog RGB output support 1920x1200
- Easy replacement of the storage device 2.5" SATA bay.
- 17" LCD with long life Touch Panel Screen and LED Backlight for Power Saving

Packing List

1x Panel PC

12x Attachment fittings

1x Waterproof Packing

Optional Configuration

AC adapter
2.5" HDD
2.5" SSD
Memory (DDR3 SO-DIMM 4GB)

Recommended CPU List

Intel® Core™ i7-3610QE
Intel® Core™ i5-3610ME
Intel® Core™ i3-3120ME
Intel® Celeron® 1020E

Ordering Information

PT-S1000XSX-DC7000
17" panel-mount, FCPGA988, 4GB, DVI-D, 2.5" SATA bay

Specifications

System	CPU	3rd gen. Intel® Core™ processor (FCPGA988)
	BIOS	BIOS (mfd. by AMI)
	Chipset	Intel® QM77 PCH
	Memory	4GB (2x 204pin SO-DIMM), DDR3-1333/1600 DDR3 SDRAM
	Watchdog timer	Software programmable, 255 level (1sec - 255 sec), Causes a reset upon time-out
	Hardware monitor	Monitoring CPU temperature, board temperature, power voltage
	RTC/CMOS	The real-time clock is accurate within ±3 minutes (at 25°C) per month, Lithium backup battery life : 7 years or more
	Power Management	Power management setup via BIOS, Power On by Ring / Wake On LAN, Supports PC98/PC99 ACPI Power management
Storage	SATA	1x 2.5" SATA HDD, slot-in system
I/O	Video (External output)	1x DVI-I (29 pin) for DVI-D only
	Audio	HD Audio compliant, Line-Out, Line-In, Mic-In: 3.5f stereo mini-jack
	Serial Ports	3x RS-232C 1x RS-232C/422/485
	LAN1	Intel®82579LM (LAN1) GbE
	LAN2	Intel®82583V (LAN2) GbE
	Expansion board slot	N/A
	USB ports	4x USB 3.0-compliant, 2x USB 2.0-compliant
Graphics	Touch panel	17" TFT color LCD, SXGA (1280 x 1024), 16.7M/262k colors Resistive-film analog type, 2048 x 2048 (emulated in 1280 x 1024 mode), Internal USB connection
	Controller	Intel® HD4000
	DVI	Max. 1,920 x 1,200RB (1,677M colors)
	HDMI	Max. 1,920 x 1,200
	Analog RGB	Max. 2,048 x 1,536
Power	Power supply connector	12 - 24VDC
	Consumption	12V 11.1A (max.), 24V 5.9A (max.)
Mechanical	Dimension(mm)	415 (W) x 354 (D) x 85 (H) (excluding protrusions)
	Panel cut (mm)	400 (W) x 339 (H)
	Weight	About 6.5kg
Environment	Operating temperature	0 - 50°C
	Storage temperature	-10 - 60°C
	Operating humidity	10 - 90%RH (no-condensation)
	Waterproofing and dust-proofing	IP65 standard (front panel)
	Certification EMC safty	CE, FCC, RoHS directive
Software operating support		Windows 7 (32/64-bit)

All specifications are subject to change without notice

High-Performance Touch Panel PC with Intel® Core™ Processor (FCPGA988)
2x LAN, 4x USB3.0, 4x COM, 2x PCI Slots

PT-S1000XSXP2

17-inch | Core i Processor | 2x PCI Slots | IP65

Features

- 3rd gen. Intel® Core™ processor (FCPGA988) with high performance
- External DVI/HDMI/Analog RGB output support 1920x1200
- Easy replacement of the storage device 2.5" SATA bay
- 17" LCD with long-life touch panel screen and LED backlight for power saving

Packing List

1x Panel PC

12x Attachment fittings

1x Waterproof packing

Optional Configuration

AC adapter
2.5" HDD
2.5" SSD
Memory (DDR3 SO-DIMM 4GB)

Recommended CPU List

Intel® Core™ i7-3610QE
Intel® Core™ i5-3610ME
Intel® Core™ i3-3120ME
Intel® Celeron® 1020E

Ordering Information

PT-S1000XSXP2-DC7000
17" panel-mount, FCPGA988, 4GB, DVI-D, 2.5" SATA bay , 2x PCI slot

Specifications

System	CPU	3rd gen. Intel® Core™ processor (FCPGA988)
	BIOS	AMI BIOS
	Chipset	Intel® QM77 PCH
	Memory	4GB (2x 204pin SO-DIMM), DDR3-1333/1600 DDR3 SDRAM
	Watchdog timer	Software programmable, 255 level (1-255 seconds), causes a reset upon time-out
	Hardware monitor	Monitoring CPU temperature, board temperature, power voltage
	RTC/CMOS	The real-time clock is accurate within ±3 minutes (at 25°C) per month, Lithium backup battery life : 7 years or more
	Power management	Power management setup via BIOS, Power On by Ring / Wake On LAN, supports PC98/PC99 ACPI power management
Storage	SATA	1x 2.5" SATA HDD, slot-in system
I/O	Video (External output)	1x DVI-I (29 pin) for DVI-D only
	Audio	HD Audio compliant, Line-Out, Line-In, Mic-In: 3.5f stereo mini-jack
	Serial ports	3x RS-232C 1x RS-232C/422/485
	LAN1	Intel®82579LM (LAN1) GbE
	LAN2	Intel®82583V (LAN2) GbE
	Expansion board slot	2x PCI slots
	USB ports	4x USB 3.0-compliant, 2x USB 2.0-compliant
Graphics	Touch panel	17" TFT color LCD, SXGA (1280 x 1024), 16.7M/262k colors Resistive-film analog type, 2048 x 2048 (emulated in 1280 x 1024 mode), Internal USB connection
	Controller	Intel® HD4000
	DVI	Max. 1,920x1,200RB(1,677M colors)
	HDMI	Max. 1,920x1,200
	Analog RGB	Max. 2,048x1,536
Power	Power supply connector	12 - 24VDC
	Consumption	12V 15.9A (max.), 24V 7.6A (max.)
Mechanical	Dimension(mm)	415 (W) x 354 (D) x 113 (H) (excluding protrusions)
	Panel cut (mm)	400 (W) x 339 (H)
	Weight	About 6.5kg
Environment	Operating temperature	0 - 50°C
	Storage temperature	-10 - 60°C
	Operating humidity	10 - 90%RH (no-condensation)
	Waterproofing and dust-proofing	IP65 standard (front panel)
	Certification EMC safty	CE, FCC, RoHS directive
Software operating support		Windows 7 (32/64-bit)

High-Performance Touch Panel PC with Intel® Core™ Processor (FCPGA988), 2x LAN, 4x USB3.0, 4x COM

PT-S1000HX

15-inch | Core i Processor | IP65

Features

- 3rd gen. Intel® Core™ processor (FCPGA988) with high performance
- External DVI/HDMI/Analog RGB output support 1920x1200
- Easy replacement of the storage device 2.5" SATA bay.
- 15" LCD with long-life touch panel screen and LED backLight for power saving

Packing List

1x Panel PC

10x Attachment fittings

1x Waterproof Packing

Optional Configuration

AC adapter
2.5" HDD
2.5" SSD
Memory (DDR3 SO-DIMM 4GB)

Recommended CPU List

Intel® Core™ i7-3610QE
Intel® Core™ i5-3610ME
Intel® Core™ i3-3120ME
Intel® Celeron® 1020E

Ordering Information

PT-S1000HX-DC7000
15" panel-mount, FCPGA988, 4GB, DVI-D, 2.5" SATA bay

Specifications

System	CPU	3rd gen. Intel® Core™ processor (FCPGA988)
	BIOS	AMI BIOS
	Chipset	Intel® QM77 PCH
	Memory	4GB (2x 204pin SO-DIMM), DDR3-1333/1600 DDR3 SDRAM
	Watchdog timer	Software programmable, 255 level (1-255 seconds), causes a reset upon time-out
	Hardware monitor	Monitoring CPU temperature, board temperature, power voltage
	RTC/CMOS	The real-time clock is accurate within ±3 minutes (at 25°C) per month, Lithium backup battery life : 7 years or more
	Power management	Power management setup via BIOS, Power On by Ring / Wake On LAN, supports PC98/PC99 ACPI power management
Storage	SATA	1x 2.5" SATA HDD, slot-in system
I/O	Video (external output)	1x DVI-I (29 pin) for DVI-D only
	Audio	HD Audio compliant, Line-Out, Line-In, Mic-In: 3.5f stereo mini-jack
	Serial ports	3x RS-232C 1x RS-232C/422/485
	LAN1	Intel®82579LM (LAN1) GbE
	LAN2	Intel®82583V (LAN2) GbE
	USB ports	4x USB 3.0-compliant 2x USB 2.0-compliant
Graphics	Touch panel	15" TFT color LCD, XGA (1024 x 768), 16.2M/262k colors Resistive-film analog type, 2048 x 2048 (emulated in 1024 x 768 mode), Internal USB connection
	Controller	Intel® HD4000
	DVI	Max. 1,920x1,200 RB (1,677M colors)
	HDMI	Max. 1,920x1,200
	Analog RGB	Max. 2,048x1,536
Power	Power supply connector	12 ~ 24VDC
	Consumption	12V 9.5A (max.), 24V 4.9A (max.)
Mechanical	Dimension (mm)	373 x 304 x 79 (excluding protrusions)
	Panel cut (mm)	358 x 289
	Weight	About 6.5 kg
Environment	Operating temperature	0 ~ 50°C
	Storage temperature	-10 ~ 60°C
	Operating humidity	10 ~ 90%RH (no-condensation)
	Waterproofing and dust-proofing	IP65 standard (front panel)
	Certification EMC safty	CE, FCC, CCC, RoHS directive
Software operating support		Windows 7 (32/64-bit)

High-performance Touch Panel PC with Intel® Core™ processor (FCPGA988), 2x LAN, 4x USB3.0, 4x COM, 2x PCI Slots

PT-S1000HXP2

15-inch | Core i Processor | 2x PCI Slots | IP65

Features

- 3rd gen. Intel® Core™ processor (FCPGA988) with high performance
- External DVI/HDMI/Analog RGB output support 1920x1200
- Easy replacement of the storage device 2.5" SATA bay.
- 15" LCD with long life touch panel screen and LED backlight for power saving

Packing List

1x Panel PC

10x Attachment fittings

1x Waterproof packing

Optional Configuration

AC adapter
2.5" HDD
2.5" SSD
Memory (DDR3 SO-DIMM 4GB)

Recommended CPU List

Intel® Core™ i7-3610QE
Intel® Core™ i5-3610ME
Intel® Core™ i3-3120ME
Intel® Celeron® 1020E

Ordering Information

PT-S1000HXP2-DC7000
15" panel-mount, FCPGA988, 4GB, DVI-D, 2.5" SATA bay , 2x PCI slots

Specifications

System	CPU	3rd gen. Intel® Core™ processor (FCPGA988)
	BIOS	AMI BIOS
	Chipset	Intel® QM77 PCH
	Memory	4GB (2x 204pin SO-DIMM sockets), DDR3-1333/1600 DDR3 SDRAM
	Watchdog timer	Software programmable, 255 levels (1-255 seconds), Causes a reset upon time-out
	Hardware monitor	Monitoring CPU temperature, board temperature, power voltage
	RTC/CMOS	The real-time clock is accurate within ±3 minutes (at 25°C) per month, Lithium backup battery life : 7 years or more
	Power management	Power management setup via BIOS, Power On by Ring / Wake On LAN, Supports PC98/PC99 ACPI power management
Storage	SATA	1x 2.5" SATA HDD, slot-in system
I/O	Video (External output)	1x DVI-I (29 pin) for DVI-D only
	Audio	HD Audio compliant, Line-Out, Line-In, Mic-In: 3.5f stereo mini-jack
	Serial ports	3x RS-232C 1x RS-232C/422/485
	LAN1	Intel®82579LM (LAN1) GbE
	LAN2	Intel®82583V (LAN2) GbE
	Expansion	2x PCI slots
	USB ports	4x USB 3.0-compliant 2x USB 2.0-compliant
Graphics	Touch panel	15" TFT color LCD, XGA(1024 x 768), 16.2M/262k colors Resistive-film analog type, 2048 x 2048 (emulated in 1024 x 768 mode), Internal USB connection
	Controller	Intel® HD4000
	DVI	Max. 1,920 x 1,200 RB (1,677M colors)
	HDMI	Max. 1,920 x 1,200
	Analog RGB	Max. 2,048 x 1,536
Power	Power supply connector	12 ~ 24VDC
	Consumption	12V 15.7A (max.), 24V 7.8A (max.)
Mechanical	Dimension (mm)	373 x 304 x 104.5 (excluding protrusions)
	Panel cut (mm)	358 x 289)
	Weight	About 6.5 kg
Environment	Operating Temperature	0 ~ 50°C
	Storage Temperature	-10 ~ 60°C
	Operating humidity	10 ~ 90%RH (no-condensation)
	Waterproofing and dust-proofing	IP65 standard (front panel)
	Certification EMC safty	CE, FCC, CCC, RoHS directive
Software operating support		Windows 7 (32/64-bit)

Touch Panel PC with Intel® Atom™ D2550
2x LAN, CFast Socket , 4x COM

PT-S959HX

15-inch | Atom D2550 | IP65

Features

- Intel® Atom™ D2550 processor
- Silent fanless design with thinner chassis
- IP65 front panel for water-proof applications
- 15" LCD with long-life touch screen and LED backlight for power saving

Packing List

1x Panel PC

10x Attachment fittings

1x Waterproof packing

1x DVI-analog RGB adapter

2x CFast card removal prevention fittings

1x Cable clamp

Optional Configuration

AC adapter
2.5" HDD
2.5" SSD
CFast Card

Ordering Information

PT-S959HX-DC6000
15" panel-mount, Intel® Atom™ D2550, 2GB DDR3

Specifications

System	CPU	Intel® Atom™ D2550 1.86GHz processor
	BIOS	AMI BIOS
	Chipset	Intel® NM10 Express
	Memory	Installed 2GB DDR3 RAM module, upgradable up to 4GB
	Watchdog timer	Software programmable, 255 level (1-255 seconds), Reset occurs when the time is up
	Hardware monitor	CPU temperature, board temperature, power monitor
	RTC/CMOS	Backup battery life: 7 years or more lithium
		Precision RTC (25℃) : ±3min/Mon (RTC integrated in NM10)
	Power management	Power management setup by BIOS Power On by Ring / Wake On LAN function PC98/PC99 ACPI power management support
Storage	CFast	1x External CFast socket
	HDD	1x 2.5" SATA drive bay
I/O	Video (external output)	1x DVI-I
	Serial ports	2x RS-232C ports, 1x RS-232C/422/485 port, 1x RS-422/485 port
	USB ports	4x USB 2.0
LCD panel	Panel size/ resolution/ color	15" TFT-LCD, XGA (1024×768), 16.7M colors
Touch panel	Resolution	2048 x 2048 (emulated in 1024 x 768 mode)
	Detection method	Resistive-film analog type
	Connection	Internal USB port
Graphics	Chipset	Intel® GMA 3650 Graphics
	VGA	Up to 1920 x 1200 (16.77M colors)
	DVI	Up to 1920 x 1200 RB (16.77M colors)
Audio	Audio Interface	HD Audio compliant, Line-out, Mic-in
Ethernet	LAN1, 2	Realtek® RTL8111E PCIe GbE LAN, support Wake on LAN
Power	Input voltage range	12 - 24VDC
	Consumption	12V@5.4A (max.), 24V@2.6A (max.)
Mechanical	Dimension (mm)	373 x 67.2 x 304 (excluding protrusions)
	Panel cut (mm)	358 x 289
Environment	Ambient temperature Horizontal installation	0 - 50℃
	Storage temperature	-10 - 60℃
	Ambient humidity	10 - 90%RH (no-condensation)
	Waterproofing and dust-proofing	IP65 standard (front panel)
	Certification EMC safety	CE, FCC, CCC, RoHS directive
Software operating support		Windows 7 (32-bit)

All specifications are subject to change without notice

Touch Panel PC with Intel® Atom™ D2550
2x LAN, CFast Socket , 2x COM , 2x PCI Slots

PT-S959HXP2

15-inch | Atom D2550 | 2x PCI Slots | IP65

Features

- Intel® Atom™ D2550 processor
- Silent fanless design with thinner chassis
- IP65 front panel for water-proof applications
- 15" LCD with long-life touch screen and LED backlight for power saving

Packing List

1x Panel PC

10x Attachment fittings

1x Waterproof packing

1x DVI-analog RGB adapter

2x CFast card removal prevention fitting

Optional Configuration

AC adapter
2.5" HDD
2.5" SSD
CFast Card

Ordering Information

PT-S959HXP2-DC7000
15" panel-mount, Intel® Atom™ D2550, 4GB DDR3, 2.5" SATA bay, 2x PCI slots

Specifications

System	CPU	Intel® Atom™ D2550 1.86GHz processor
	BIOS	AMI BIOS
	Chipset	Intel® NM10 Express
	Memory	Installed 4GB DDR3 RAM module
	Watchdog timer	Software programmable, 255 level (1-255 seconds), Reset occurs when the time is up
	Hardware monitor	CPU temperature, board temperature, power monitor
	RTC/CMOS	Backup battery life: 7 years or more lithium
		Precision RTC (25°C) : ±3min/Mon (RTC integrated in NM10)
	Power management	Power management setup by BIOS Power On by Ring / Wake On LAN function PC98/PC99 ACPI power management support
Storage	CFast	1x External CFast socket
	HDD	1x 2.5" SATA drive bay
I/O	Video (external output)	1x DVI-I
	Serial ports	2x RS-232C ports
	USB ports	4x USB 2.0
	Expansion board slot	2x PCI slots
LCD panel	Panel size/ resolution/ color	15" TFT-LCD, XGA (1024×768), 16.7M colors
Touch panel	Resolution	2048 x 2048 (emulated in 1024 x 768 mode)
	Detection method	Resistive-film analog type
	Connection	Internal USB port
Graphics	Chipset	Intel® GMA 3650 Graphics
	VGA	Up to 1920 x 1200 (16.77M colors)
	DVI	Up to 1920 x 1200 RB (16.77M colors)
Audio	Audio Interface	HD Audio compliant, Line-out, Mic-in
Ethernet	LAN1, 2	Realtek® RTL8111E PCIe GbE LAN, support Wake on LAN
Power	Input voltage range	12 - 24VDC
	Consumption	12V 5.2A (max.), 24V 2.8A (max.)
Mechanical	Dimension (mm)	373 x 304 x 125.4 (internal-panel depth, excluding protrusions)
	Panel cut (mm)	358 x 289
Environment	Ambient temperature Horizontal installation	0 - 50℃
	Storage temperature	-10 - 60℃
	Ambient humidity	10 - 90%RH (no-condensation)
	Waterproofing and dust-proofing	IP65 standard (front panel)
	Certification EMC safety	CE, FCC, CCC, RoHS directive
Software operating support		Windows 7 (32-bit)

Touch Panel PC with Intel® Atom™ D2550
2x LAN, 2x CFast Sockets

PT-S958HX

15-inch | Atom D2550 | Dual CFast | IP65

Features

- Intel® Atom™ D2550 processor
- Silent fanless design with thinner chassis
- IP65 front panel for water-proof applications
- 15" LCD with long-life touch screen and LED backlight for power saving

Packing List

1x Panel PC

10x Attachment fittings

1x Waterproof packing

1x DVI-analog RGB adapter

2x CFast card removal prevention fittings

1x Cable clamp

Optional Configuration

AC adapter
CFast card

Ordering Information

PT-S958HX-DC6000
15" panel-mount, Intel® Atom™ D2550, 2GB DDR3

Specifications

System	CPU	Intel® Atom™ D2550 1.86GHz processor
	BIOS	AMI BIOS
	Chipset	Intel® NM10 Express
	Memory	Installed 2GB DDR3 RAM module, upgradable up to 4GB
	Watchdog timer	Software programmable, 255 level (1-255 seconds), Reset occurs when the time is up
	Hardware monitor	CPU temperature, board temperature, power monitor
	RTC/CMOS	Backup battery life: 7 years or more lithium
		Precision RTC (25℃) : ±3min/Mon (RTC integrated in NM10)
	Power management	Power management setup via BIOS, Power On by Ring / Wake On LAN, Supports PC98/ PC99 ACPI Power management
Storage	CFast	2x external CFast sockets
I/O	Video (external output)	1x DVI-I
	Serial ports	2x RS-232C ports
	USB ports	4x USB 2.0
LCD panel	Panel size/ resolution/ color	15" TFT-LCD, XGA (1024×768), 16.7M colors
Touch panel	Resolution	2048 x 2048 (emulated in 1024 x 768 mode)
	Detection method	Resistive-film analog type
	Connection	Internal USB port
Graphics	Chipset	Intel® GMA 3650 Graphics
	VGA	Up to 1920 x 1200 (16.77M colors)
	DVI	Up to 1920 x 1200 RB (16.77M colors)
Audio	Audio Interface	HD Audio compliant, Line-out, Mic-in
Ethernet	LAN1, 2	Realtek® RTL8111E PCIe GbE LAN, support Wake on LAN
Power	Input voltage range	12 - 24VDC
	Consumption	12V@5.4A (max.), 24V@2.6A (max.)
Mechanical	Dimension (mm)	373 53.2x 304 (excluding protrusions)
	Panel cut (mm)	358 x 289
Environment	Ambient temperature Horizontal installation	0 - 50℃
	Storage temperature	-10 - 60℃
	Ambient humidity	10 - 90%RH (no-condensation)
	Waterproofing and dust-proofing	IP65 standard (front panel)
	Certification EMC safety	CE, FCC, CCC, RoHS directive
Software operating support		Windows 7 (32-bit)

All specifications are subject to change without notice

Touch Panel PC with Intel® Atom™ D2550
2x LAN, 5x COM

PT-D2515NL

15-inch | Atom D2550 | IP65

Features

- Intel® Atom™ D2550 processor
- 15" TFT LCD with 5-wire resistive touch panel
- IP65 front panel for water-proof applications
- Flexible storage interfaces (HDD/SSD/mSATA/ SATA DOM)

Packing List

1x Panel PC

1x AC adapter & AC power cord

14x Screws for panel mount

Optional Configuration

2.5" HDD
2.5" SSD
mSATA

Ordering Information

PT-D2515NL-DC40000
15" touch panel PC with Intel® Atom™ D2550 processor

Specifications

Mount type		15" Panel mount
System	CPU	Intel® Atom™ D2550 1.86GHz processor
	Chipset	Intel® NM10 Express
	BIOS	AMI 32bit BIOS
	Memory	1x 204 pin SO-DIMM, Single-channel DDR3 1600/ 1333/ 1066MHz / Max : 4GB
Graphic	Controller	Intel® GMA 3650 Graphics
	Video RAM	Main memory shared
Graphic	LCD Size	15" LCD, XGA (1024x768), 1620,000,000 or 260,000 colors
Touch panel	Detection method	5-wire resistive touch panel
External Display		1x HDMI, 1x VGA
Audio	CODEC	HD Audio compliant
Ethernet	Controller	Realtek® RTL8111E 1000BASE-T/100BASE-TX/10BASE-T, RJ-45 x2 support Wake On LAN
General-purpose I/O		N/A
Watchdog timer		Software programmable, 255 level
Expansion	Mini-PCIe	1x slot
Interface	External Display	1x HDMI, 1x VGA
	Audio	1x Line-out, 1x Line-in, 1x Mic-in
	SATA	320G 2.5" HDD (optional)
	mSATA	1x slot (shared with Mini-PCIe socket)
	USB	4x USB 2.0
	Serial	1x RS-232C/422/485, 4x RS-232C (0V/5V/12V)
	PS/2	KB / MS
Power consumption		12V@6A (max.)
Power source power adaptor		DC-in 12V
Operating temperature		0 ~ 45°C (HDD), 0 ~ 50°C (SSD or mSATA)
Operating humidity		10 ~ 90%RH (no-condensation)
Storage temperature		-10 ~ 60°C
Storage humidity		10 ~ 90%RH (no-condensation)
Physical dimension (mm)		410 x 340 x 79.78
Characteristics weight		5.0 kg (without bezel)
Installation VESA		75x75mm/100x100mm
Waterproofing and dust-proofing		IP65 standard (front panel)
Certification EMC safety		FCC, CE, C-Tick, VCCI
Software operating support		Windows XP/7 (32-bit)

Touch Panel PC with Intel® Atom™ D2550
2x LAN, CFast Socket, 4x COM

PT-S959LX

12.1-inch | Atom D2550 | IP65

Features

- Intel® Atom™ D2550 processor
- Silent fanless design with thinner chassis
- IP65 front panel for water-proof applications
- 12.1" LCD with long-life touch screen and LED backlight for power saving

Packing List

1x Panel PC

10x Attachment fittings

1x Waterproof packing

1x DVI-analog RGB adapter

2x CFast card removal prevention fittings

1x Cable clamp

Optional Configuration

AC adapter
CFast Card
2.5" HDD
2.5" SSD

Ordering Information

PT-S959LX-DC6000
12.1" panel-mount, Intel® Atom™ D2550, 2GB DDR3

Specifications

System	CPU	Intel® Atom™ D2550 1.86GHz processor
	BIOS	AMI BIOS
	Chipset	Intel® NM10 Express
	Memory	Installed 2GB DDR3 RAM module, upgradable up to 4GB
	Watchdog timer	Software programmable, 255 level (1-255 seconds), Reset occurs when the time is up
	Hardware monitor	CPU temperature, board temperature, power monitor
	RTC/CMOS	Backup battery life: 7 years or more lithium
		Precision RTC (25℃) : ±3min/Mon (RTC integrated in NM10)
	Power management	Power management setup via BIOS, Power On by Ring / Wake On LAN, Supports PC98/ PC99 ACPI Power management
Storage	CFast	1x external CFast socket
	HDD	1x 2.5" SATA drive bay
I/O	Video (external output)	1x DVI-I
	Serial ports	2x RS-232C ports, 1 x RS-232C/422/485 port, 1x RS-422/485 port
	USB ports	4x USB ports, USB 2.0 compliant
LCD panel	Panel size/ resolution/ color	12.1" TFT-LCD, XGA (1024×768), 16.7M colors
Touch panel	Resolution	2048 x 2048 (emulated in 1024 x 768 mode)
	Detection method	Resistive-film analog type
	Connection	Internal USB port
Graphics	Chipset	Intel® GMA 3650 Graphics
	VGA	Up to 1920 x 1200 (16.77M colors)
	DVI	Up to 1920 x 1200 (16.77M colors)
Audio	Audio Interface	HD Audio compliant, Line-out, Mic-in
Ethernet	LAN1, 2	Realtek® RTL8111E PCIe GbE LAN, support wake on LAN
Power	Input voltage range	12 - 24VDC
	Consumption	12V@5.3A (max.), 24V@3.0A (max.)
Mechanical	Dimension (mm)	316 (W) x 63.2 (D) x 256 (H) (excluding protrusions)
	Panel cut (mm)	303 (W) x 243 (H)
Environment	Ambient temperature Horizontal installation	0 - 50℃
	Storage temperature	-10 - 60℃
	Ambient humidity	10 - 90%RH (no-condensation)
	Waterproofing and dust-proofing	IP65 standard (front panel)
	Certification EMC safety	CE, FCC, RoHS directive
Software operating support		Windows 7 (32-bit)

All specifications are subject to change without notice

Touch Panel PC with Intel® Atom™ D2550
2x LAN, 2x CFast Sockets

PT-S958LX

12.1-inch | Atom D2550 | Dual CFast | IP65

Features

- Intel® Atom™ D2550 processor
- Silent fanless design with thinner chassis
- IP65 front panel for water-proof applications
- 12.1" LCD with long-life touch screen and LED backlight for power saving

Packing List

1x Panel PC

10x Attachment fittings

1x Waterproof packing

1x DVI-analog RGB adapter

2x CFast card removal prevention fitting

1x Cable clamp

Optional Configuration

AC adapter
CFast Card

Ordering Information

PT-S958LX-DC6000
12.1" panel-mount, Intel® Atom™ D2550, 2GB DDR3

Specifications

System	CPU	Intel® Atom™ D2550 1.86GHz processor
	BIOS	AMI BIOS
	Chipset	Intel® NM10 Express
	Memory	Installed 2GB DDR3 RAM module, upgradable up to 4GB
	Watchdog timer	Software programmable, 255 level (1-255 seconds), Reset occurs when the time is up
	Hardware monitor	CPU temperature, board temperature, power monitor
	RTC/CMOS	Backup battery life: 7 years or more lithium
		Precision RTC (25°C) : ±3min/Mon (RTC integrated in NM10)
	Power management	Power management setup via BIOS, Power On by Ring / Wake On LAN, Supports PC98/PC99 ACPI Power management
Storage	CFast	2x external CFast sockets
I/O	Video (external output)	1x DVI-I
	Serial ports	2x RS-232C ports
	USB ports	4x USB ports, USB 2.0 compliant
LCD panel	Panel size/ resolution/ color	12.1" TFT-LCD, XGA (1024×768), 16.7M colors
Touch panel	Resolution	2048 x 2048 (emulated in 1024 x 768 mode)
	Detection method	Resistive-film analog type
	Connection	Internal USB port
Graphics	Chipset	Intel® GMA 3650 Graphics
	VGA	Up to 1920 x 1200 (16.77M colors)
	DVI	Up to 1920 x 1200 RB (16.77M colors)
Audio	Interface	HD Audio compliant, Line-out, Mic-in
Ethernet	LAN1, 2	Realtek® RTL8111E PCIe GbE LAN, support wake on LAN
Power	Input voltage range	12 - 24VDC
	Consumption	12V@5.3A (max.), 24V@3.0A (max.)
Mechanical	Dimension (mm)	316 x 49.2 x 256 (excluding protrusions)
	Panel cut (mm)	303 x 243
Environment	Ambient temperature Horizontal installation	0 - 50℃
	Storage temperature	-10 - 60℃
	Ambient humidity	-10 - 90%RH (no-condensation)
	Waterproofing and dust-proofing	IP65 standard (front panel)
	Certification EMC safety	CE, FCC, RoHS directive
Software operating support		Windows 7 (32-bit)

Touch Panel PC with Intel® Atom™ D2550
2x LAN, CFast Socket, 2x COM

PT-S959W10

Wide 10.1-inch | Atom D2550 | IP65

Features

- Intel® Atom™ D2550 processor
- Silent fanless design with thinner chassis
- IP65 front panel for water-proof applications
- 10.1" LCD with long-life touch screen and LED backlight for power saving

Packing List

1x Panel PC

1x DVI-analog RGB adapter

2x CFast card removal prevention fittings

1x Cable clamp

Optional Configuration

AC adapter
2.5 HDD
2.5 SSD
CFast card

Ordering Information

PT-S959W10-DC6000
10.1" panel-mount, Intel® Atom™ D2550, 2GB DDR3, 2x COM

Specifications

System	CPU	Intel® Atom™ D2550 1.86GHz processor
	BIOS	AMI BIOS
	Chipset	Intel® NM10 Express
	Memory	Installed 2GB DDR3 RAM module, upgradable up to 4GB
	Watchdog timer	Software programmable, 255 level (1-255 seconds), Reset occurs when the time is up
	Hardware monitor	CPU temperature, board temperature, power monitor
	RTC/CMOS	Backup battery life: 7 years or more lithium
		Precision RTC (25℃) : ±3min/Mon (RTC integrated in NM10)
	Power management	Power management setup by BIOS Power On by Ring / Wake On LAN function PC98/PC99 ACPI power management support
Storage	CFast	1x external CFast socket
	HDD	1x 2.5" SATA drive bay
I/O	Video (external output)	1x DVI-I
	Serial ports	2x RS-232C ports
	USB ports	4x USB ports, USB 2.0 compliant
LCD panel	Panel size/ resolution/ color	Wide 10.1" TFT-LCD, WSGA (1024 × 600), 260,000 colors
Touch panel	Resolution	2048 x 2048 (emulated in 1024 x 600 mode)
	Detection method	Resistive-film analog type
	Connection	Internal USB port
Graphics	Chipset	Intel® GMA 3650 Graphics
	VGA	Up to 1920 x 1200 (16.77M colors)
	DVI	Up to 1920 x 1200 RB (16.77M colors)
Audio	Interface	HD Audio compliant, Line-out, Mic-in
Ethernet	LAN1, 2	Realtek® RTL8111E PCIe GbE LAN, support wake on LAN
Power	Input voltage range	12 - 24VDC
	Consumption	12V 3.2A (max.), 24V 1.6A (max.)
Mechanical	Dimension (mm)	300 x 57 x 195 (excluding protrusions)
	Panel cut (mm)	224 x 128
Environment	Ambient temperature Horizontal installation	0 - 50℃ (0 -45℃ Optimum operating temperature)
	Storage temperature	-10 - 60℃
	Ambient humidity	10 - 90%RH (no-condensation)
	Waterproofing and dust-proofing	IP65 standard (front panel)
	Certification EMC safety	CE, FCC, RoHS directive
Software operating support		Windows 7 (32-bit)

All specifications are subject to change without notice

Touch Panel PC with Intel® Atom™ D2550
2x LAN, CFast Socket, 4x COM

PT-S959W10C

Wide 10.1-inch | Atom D2550 | IP65

Features

- Intel® Atom™ D2550 processor
- Silent fanless design with thinner chassis
- IP65 front panel for water-proof applications
- 10.1" LCD with long-life touch screen and LED backlight for power saving

Packing List

1x Panel PC

1x DVI-analog RGB adapter

2x CFast card removal prevention fittings

1x Cable clamp

Optional Configuration

AC adapter
2.5 HDD
2.5 SSD
CFast card

Ordering Information

PT-S959W10C-DC6000
10.1" panel-mount, Intel® Atom™ D2550, 2GB DDR3, 4x COM

System	CPU	Intel® Atom™ D2550 1.86GHz processor
	BIOS	AMI BIOS
	Chipset	Intel® NM10 Express
	Memory	Installed 2GB DDR3 RAM module, upgradable up to 4GB
	Watchdog timer	Software programmable, 255 level (1-255 seconds), Reset occurs when the time is up
	Hardware monitor	CPU temperature, board temperature, power monitor
	RTC/CMOS	Backup battery life: 7 years or more lithium
		Precision RTC (25°C) : ±3min/Mon (RTC integrated in NM10)
	Power management	Power management setup by BIOS Power On by Ring / Wake On LAN function PC98/PC99 ACPI power management support
Storage	CFast	1x external CFast sockets
	HDD	1x 2.5" SATA drive bay
I/O	Video (external output)	1x DVI-I
	Serial ports	2x RS-232C ports, 1x RS-232C/422/485 port, 1x RS-422/485 port
	USB ports	4x USB ports, USB 2.0 compliant
LCD panel	Panel size/ resolution/ color	Wide 10.1" TFT-LCD, WSGA (1024 × 600), 260,000 colors
Touch panel	Resolution	2048 x 2048 (emulated in 1024 x 600 mode)
	Detection method	Resistive-film analog type
	Connection	Internal USB port
Graphics	Chipset	Intel® GMA 3650 Graphics
	VGA	Up to 1920 x 1200 (16.77M colors)
	DVI	Up to 1920 x 1200 RB (16.77M colors)
Audio	Interface	HD Audio compliant, Line-out, Mic-in
Ethernet	LAN1, 2	Realtek® RTL8111E PCIe GbE LAN, support wake on LAN
Power	Input voltage range	12 - 24VDC
	Consumption	12V 3.2A (max.), 24V 1.6A (max.)
Mechanical	Dimension (mm)	300 x 57 x 195 (excluding protrusions)
	Panel cut (mm)	224 x 128
Environment	Ambient temperature Horizontal installation	0 - 50℃ (0 -45℃ Optimum operating temperature)
	Storage temperature	-10 - 60℃
	Ambient humidity	10 - 90%RH (no-condensation)
	Waterproofing and dust-proofing	IP65 standard (front panel)
	Certification EMC safety	CE, FCC, RoHS directive
Software operating support		Windows 7 (32-bit)

Industrial

Selection guide

BOX Computers

Feature		High-Performance			Slim & Compact
Model		**BX-840W**	**BX-820W**	**BX-800W**	**BX-1000**
Processor	CPU	Intel® 4th gen. Core™ i5 / i3 and Pentium®	Intel® 4th gen. Core™ i5 / i3 and Pentium®	Intel® 4th gen. ULT	Intel® 3rd gen. Core™ Mobile
	CPU type	LGA1150	LGA1150	BGA1168	FCBGA1023
	Chipset	Intel® Q87 PCH	Intel® Q87 PCH	Intel® Q87 PCH	Intel® QM77
	BIOS	AMI BIOS	Phoenix BIOS	AMI BIOS	AMI BIOS
System memory	Max. capacity	Up to 16GB	Up to 16GB	Up to 16GB	Up to 8GB
	SO-DIMM sockets	2	2	2	2
Ethernet ports		2	2	2	2
Audio CODEC		Realtek® HD ALC887	Realtek® HD ALC886	Realtek® HD ALC886	
Watchdog timer		255-level	255-level	255-level	255-level
TPM	Controller	Infineon SLB9635TT1.2	N/A	N/A	N/A
Storage	SATA 3.0	2	2	1	N/A
	SATA 2.0	N/A	1	N/A	2
	mSATA	N/A	N/A	1	N/A
	CFast	1	N/A	N/A	1
	CompactFlash	N/A	N/A	N/A	N/A
Expansion Bus		1x PCIe(x16) 3x PCI	2x PCIe(x1)	2x Mini-PCIe socket	none/2/4
I/O	RJ-45	2	2	2	2
	Audio	Yes	Yes	Yes	Yes
	USB 2.0	2	2	2	2
	USB 3.0	4	4	2	4
	RS-232/422/485	2	2	1	N/A
	RS-232	3	4	1	3
	Parallel	N/A	N/A	N/A	N/A
	PS/2	Yes	N/A	N/A	N/A
	HDMI	N/A	1	1	1
	DVI	1	N/A	N/A	1
	Display port	2	1	1	N/A
	VGA	N/A	1	N/A	1
	Antenna hole	N/A	2	2	N/A
Power source		DC-in 9V - 36V	DC-in 12V - 36V	DC-in 12V - 24V	AC-in 100 - 240V
Operating temperature		0 - 40°C	-20 - 40°C	-20 - 55°C	0 - 50°C
Dimensions (mm)		172.5 x 225 x 213	253 x 193 x 120	220 x 160 x 60	none slot : 262 x 262 x 65 2slots : 262 x 262 x 120 4slots : 262 x 262 x 160
Weight		4.5 kg	7 kg	2 kg	none slot : 3.4 kg 2slots : 4.6 kg 4slots : 4.9 kg
EMC		FCC, CE, C-Tick, VCCI, BSMI	FCC, CE	FCC, CE	FCC, CE, VCCI
Safety		N/A	N/A	N/A	N/A
Page		29	30	31	32

BOX Computers

Features		Slim & Compact			
Model		BX-700W	BX-130A	BX-S959	BX-S958
Processor	CPU	Intel® 3rd gen. Core™ Mobile	Intel® Atom™ D2550	Intel® Atom™ D2550	Intel® Atom™ D2550
	CPU type	rPGA 989	BGA8-559	BGA8-559	BGA8-559
	Chipset	Intel® QM77 PCH	Intel® NM10 Express	Intel® NM10 Express	Intel® NM10 Express
	BIOS	AMI BIOS	AMI BIOS	AMI BIOS	AMI BIOS
System memory	Max. capacity	Up to 16GB	Up to 4GB	Up to 4GB	Up to 4GB
	SO-DIMM socket	2	1	2	2
Ethernet ports		2	2	2	2
Audio CODEC		Realtek® HD ALC887	Realtek® HD ALC887	Realtek® HD ALC892	Realtek® HD ALC892
Watchdog timer		255-level	255-level	255-level	255-level
TPM	Controller	N/A	N/A	N/A	N/A
Storage	SATA 3.0	N/A	N/A	N/A	N/A
	SATA 2.0	1	1	1	N/A
	mSATA	1	1	1	1
	CFast	N/A	N/A	1	2
	CompactFlash	N/A	N/A	N/A	N/A
Expansion Bus		2 x Mini-PCIe sockets	1 x Mini-PCIe socket	N/A	N/A
I/O	RJ-45	2	2	2	2
	Audio	Yes	Yes	Yes	Yes
	USB 2.0	6	6	4	4
	USB 3.0	2	N/A	N/A	N/A
	RS-232/422/485	N/A	1	1	N/A
	RS-232	3	3	2	2
	Parallel	N/A	N/A	N/A	N/A
	PS/2	Yes	N/A	N/A	N/A
	HDMI	N/A	1	N/A	N/A
	DVI	1	N/A	1	1
	Display port	2	N/A	N/A	N/A
	VGA	N/A	1	N/A	N/A
	Antenna hole	1	2	N/A	N/A
Power source		DC-in 19V	DC-in 12V	DC-in 12V - 24V	DC-in 12V - 24V
Operating temperature		0 - 50°C	0 - 40°C	0 - 50°C	0 - 50°C
Dimensions (mm)		180 x 182 x 42	196 x 136 x 43	182 x 160 x 52	182 x 155 x 35
Weight		1.8 kg	1.2 kg	1.9 kg	1.4 kg
EMC		FCC, CE, C-Tick, VCCI, BSMI, CB, UL	FCC, CE, C-Tick, VCCI, BSMI	FCC, CE Class A	FCC, CE Class A
Safety		N/A	N/A	N/A	N/A
Page		33	34	35	36

Fanless BOX Computer with Intel® Haswell Desktop Processor
5x COM, 4x Expansion Slots

BX-840W

Fanless Design | Wide voltage | iAMT | TPM

Features

- 4th gen. Intel® Core™ i7/i5/i3 or Pentium® processor, up to 35W TDP
- Support wide voltage DC-In 9 to 36V
- Versatile expansion interfaces

Packing List

1x BOX Computer

1x User's manual

1x Driver CD

Recommended CPU List

Intel® Core™ i5-4570TE
Intel® Core™ i3-4330TE
Intel® Pentium® G3320TE
Intel® Celeron® G1820TE

Optional Configuration

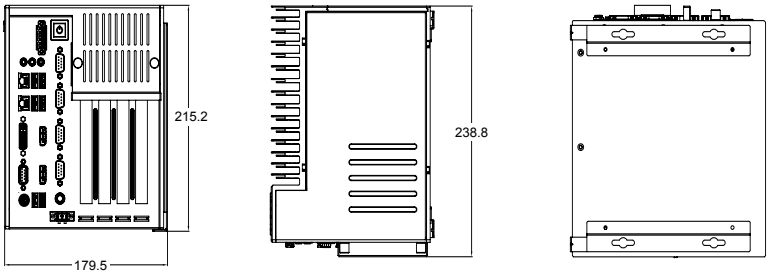
AC adapter
2.5" HDD
2.5" SSD
CFast Card

Ordering Information

BX-840W-DC00000
Fanless box without CPU processor, memory, OS

Specifications

System	CPU	Intel® 4th gen. Core™ i7/ i5/ i3 and Pentium® processor, LGA1150
	Chipset	Intel® Q87 PCH
	BIOS	AMI UEFI BIOS
	Memory	2x 204 pin SO-DIMM, Single-channel DDR3 1600/1333/1066MHz/Max:16GB non-ECC, standard/low voltage)
Graphic	Controller	Intel® HD Graphics 4600
	Video RAM	Main memory shared
Display I/F		1x DVI-I, 2x Display ports
Audio	CODEC	Realtek® ALC887 HD
Ethernet	Controller	1x Intel® i217LM GbE PHY LAN with iAMT supported, 1x Intel® I210AT PCIe GbE LAN
H/W monitor	Watchdog timer	255-level
TPM	Controller	Infineon SLB9635TT1.2
Expansion	Mini-PCIe	N/A
	PCIe	1x PCIe(x16) slot
	PCI	3 slots
Interface	SATA	2x SATA 3.0
	mSATA	N/A
	CFast	1 socket
	RJ-45	2x LAN ports
	Audio	1x Line-out, 1x Line-in, 1x Mic-in
	USB	4x USB 3.0, 2x USB 2.0
	Serial	2x RS-232C/422/485 0V/5V/12V selectable, 3x RS-232C x3
	PS/2	KB / MS
	Antenna	N/A
Power source power adaptor		DC-in 9V-36V
Power supply		N/A
Operating temperature		0 ~ 40°C w/ SSD
Operating humidity		10 ~ 90%RH (no-condensation)
Storage temperature		-20 ~ 80°C
Storage humidity		10 ~ 90%RH (no-condensation)
Physical dimension (mm)		172.5 x 225 x 213
Characteristics weight		4.5 kg
Certification EMC safety		FCC, CE, C-Tick, VCCI, BSMI
Software operating support		Windows XP (32/64-bit), Windows 7 (32/64-bit), Windows 8 (32-bit)



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All specifications are subject to change without notice

Fanless BOX Computer with Intel® Haswell Desktop Processor
6x COM, 2x Expansion Slots

BX-820W

Fanless Design | 2x 2.5" HDD bays | Wide voltage | 6x COM

Features

- 4th gen. Intel® Core™ i7/i5/i3 or Pentium® processor
- -20 to 40°C wide range operating temperature
- Support wide voltage DC-In 12 to 36V
- Versatile expansion interfaces

Packing List

1x BOX Computer

1x User's manual

1x Driver CD

Recommended CPU List

Intel® Core™ i5-4570TE
Intel® Core™ i3-4330TE
Intel® Pentium® G3320TE
Intel® Celeron® G1820TE

Optional Configuration

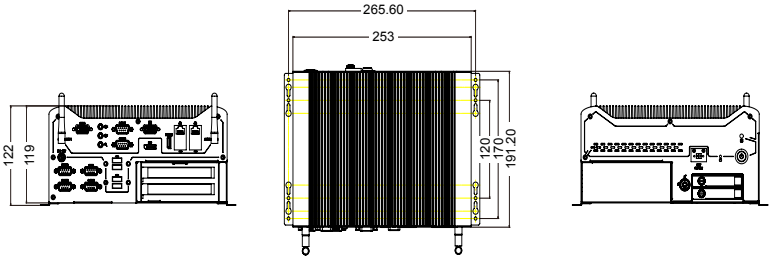
AC adapter
2.5" HDD
2.5" SSD

Ordering Information

BX-820W-DC00000
Fanless box without CPU processor, memory, OS

Specifications

System	CPU	Intel® 4th gen. Core™ i7/ i5/ i3 and Pentium® processor, LGA1150
	Chipset	Intel® Q87 PCH
	BIOS	Phoenix UEFI BIOS
	Memory	2x 204 pin SO-DIMM, Single-channel DDR3 1600/1333/ 1066MHz/Max:16GB non-ECC, standard/low voltage)
Graphic	Controller	Intel® HD Graphics 4600
	Video RAM	Main memory shared
Display I/F		1x HDMI, 1x VGA, 1x Display port
Audio	CODEC	Realtek® ALC886 HD
Ethernet	Controller	1x Intel® i217LM GbE PHY LAN with iAMT supported, 1x Intel® I210AT PCIe GbE LAN
H/W monitor	Watchdog timer	255-level
Expansion	Mini-PCIe	1 Slot
	PCIe	2x PCIe(x1) slots
	PCI	N/A
Interface	SATA	2x SATA 3.0, 1x SATA DOM
	RJ-45	2x LAN ports
	Audio	1x Line-out, 1x Line-in, 1x Mic-in
	USB	4x USB 3.0, 2x USB 2.0
	Serial	2x RS-232C/422/485, 4x RS-232C
	Antenna	2x Antenna holes for WiFi/ 3G module
	DIO	4-in / 4-out
Power source power adaptor		DC-in 12V-36V
Operating temperature		-20 - 40°C (i7 need to added fan on heat-sink)
Operating humidity		10 - 90%RH (no-condensation)
Storage temperature		-40 - 80°C
Storage humidity		10 - 90%RH (no-condensation)
Operatin vibration		5Grms / 5-500Hz, IEC 60068-2-27
Operation shock		50G, 11 msec, IEC 60068-2-27
Physical dimension (mm)		253 x 193 x 120
Characteristics weight		7 kg
Certification EMC safety		FCC, CE
Software operating support		Windows XP (32/64-bit), Windows 7 (32/64-bit), Windows 8 (32-bit)



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Fanless BOX Computer with Intel® Haswell ULT Processor
2x Expansion Slots

BX-800W

Fanless Design | Compact Design

Features

- 4th gen. Intel® ULT i5-4300U or Celeron® 2980U processor
- -20 to 55°C wide range operating temperature
- Support wide voltage DC-In 12 to 24V
- Compact and high performance

Packing List

1x BOX Computer

1x User's manual

1x Driver CD

Optional Configuration

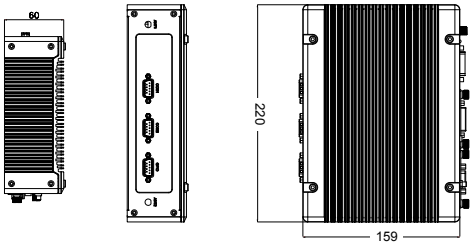
AC adapter
2.5" HDD
2.5" SSD
Mini-PCIe / mSATA

Ordering Information

BX-800W-DC00000
Fanless box without CPU processor, memory, OS

Specifications

System	CPU	Intel® 4th gen. ULT i5-4300U
	Chipset	Intel® Q87 PCH
	BIOS	AMI SPI BIOS
	Memory	2x 204 pin SO-DIMM, Single-channel DDR3L 1600/ 1333MHz, Max : 16GB, non-ECC
Graphic	Controller	Intel® HD Graphics 4400
	Video RAM	Main memory shared
Display I/F		1x HDMI, 1x Display Port
Audio	CODEC	Realtek® ALC886 HD
Ethernet	Controller	1x Intel® i218LM GbE PHY LAN with iAMT supported, 1x Intel® I210AT PCIe GbE LAN
H/W monitor	Watchdog timer	255-level
Expansion	Mini-PCIe	2 slots
Interface	SATA	1x SATA 3.0
	mSATA	1 slot (shared with Mini-PCIe socket)
	RJ-45	2x LAN ports
	Audio	1x Line-out, 1x Mic-in
	USB	2x USB 3.0, 2x USB 2.0
	Serial	1x RS-232C/422/485, 1x RS-232C
	Antenna	2x Antenna holes
	DIO	4-in / 4-out
Power source power adaptor		DC-in 12V-24V
Power supply		N/A
Operating temperature		-20 ~ 55°C
Operating humidity		10 ~ 90%RH (no-condensation)
Storage temperature		-20 ~ 80°C
Storage humidity		10 ~ 90%RH (no-condensation)
Physical dimension (mm)		220 x 160 x 60
Characteristics weight		2.0 kg
Mounting		N/A
Certification EMC safety		FCC, CE
Software operating support		Windows XP (32/64-bit), Windows 7 (32/64-bit), Windows 8 (32-bit)



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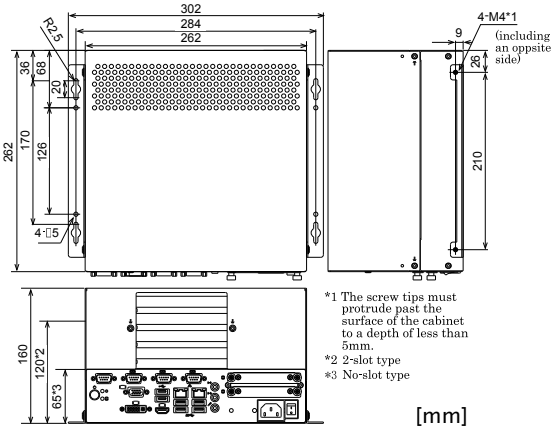
All specifications are subject to change without notice

Fanless BOX Computer with
Core™ i7-3517UE 1.7GHz / Celeron® 927UE 1.5GHz

BX-1000

4x USB3.0 | Expansion slots | Wide voltage



Features

- Intel® 3rd gen. Core™ i7-3517UE or Celeron® 927UE processor
- Industrial BOX Computer equipped with a rich variety of interfaces
- Adoption of slot-in 2.5 inches SATA hard disk bay unit
- Fan-less operation achieved by natural air-cooling

Packing List

1x BOX Computer

1x AC Cable

1x Recovery Media *1

*1 It is not packed to the OS uninstall model.

Optional Configuration

2.5" HDD
2.5" SSD
CFast Card

Ordering Information

Core i7-3517UE Equipped Model
BX-1000-AC37000
Without Expansion Slots
BX-1000P2-AC37000
Expansion (2x PCI) Equipped
BX-1000P4-AC37000
Expansion (1x PCI Express(x8), 3x PCI) Equipped

Celeron 927UE Equipped Model
BX-1000-AC17000
Without Expansion Slots
BX-1000P2-AC17000
Expansion (2x PCI) Equipped
BX-1000P4-AC17000
Expansion (1x PCI Express(x8), 3x PCI) Equipped

Specifications

System	CPU	Intel® Core™ i7-3517UE 1.70GHz Intel® Celeron® 927UE 1.50GHz
	Chipset	Intel® QM77
	BIOS	AMI BIOS
	Memory	4GB, 2x 204pin SO-DIMM socket, PC3-10600(DDR3 1333)DDR3 SDRAM support
Graphic	Controller	Core™ i7 : Intel® HD Graphics 4000 (CPU integrated) Celeron® : Intel® HD Graphics (CPU integrated)
	Video RAM	Main memory shared
Display I/F		1x VGA, 1x DVI-I, 1x HDMI
Audio	CODEC	Realtek® ALC892 HD
Ethernet	Controller	1x Intel® 82579LM PHY Controller 1x Intel® 82583V Controller
H/W monitor	Watchdog timer	255-level
Expansion	PCIe	Standard model : None 2-slot expansion model : 2x PCI slots 4-slot expansion model : 1x PCI-Express(x8) slot, 3x PCI slots
	PCI	
Interface	SATA	2x 2.5" SATA bay
	mSATA	N/A
	CFast	1x CFast CARD Type I
	RJ-45	2x LAN ports
	Audio	1x Line-out, 1x Line-in, 1x Mic-in
	USB	4x USB 3.0, 2x USB 2.0
	Serial	3x RS-232C
	PS/2	N/A
	Antenna	N/A
	DIO	9 pin D-sub female(6x Non-isolated general purpose I/O, remote power switch)
Power source power adaptor		100 - 240VAC
Power supply		N/A
Operating temperature		0 - 50°C
Operating humidity		10 - 90%RH (no-condensation)
Storage temperature		-10 - 60°C
Storage humidity		10 - 90%RH (no-condensation)
Physical dimension (mm)		Standard model : 262(W) x 262(D) x 65(H) 2-slot expansion model : 262(W) x 262(D) x 120(H) 4-slot expansion model : 262(W) x 262(D) x 160(H)
Characteristics weight		Standard model : About 3.4 kg 2-slot expansion model : About 4.6 kg 4-slot expansion model : About 4.9 kg
Mounting		N/A
Certification EMC safety		FCC, CE, VCCI,
Software operating support		Windows Embedded Standard 2009 (32-bit) Windows 7 Professional、Windows Embedded Standard 7 (32-bit)

All specifications are subject to change without notice

Small Size BOX Computer with Intel® 3rd gen. Core™ Mobile Processor
4x COM, 6x USB Ports

BX-700W

Fanless Design | Heat Pipe Solution | Compact Design

Features

- Intel® 3rd gen. Core™ Ivy Bridge mobile series processor
- Great 3D graphic performance (definition up to 1080P)
- 3 independent displays with DP+DP+DVI-I
- 2x Intel® GbE LAN (one with iAMT 8.0) and 2x USB 3.0

Packing List

1x BOX Computer

1x User's manual

2x Mounting bracket kits

1x Driver CD

1x AC adapter & AC power cord

Recommended CPU List

Intel® Core™ i7-3610QE
Intel® Core™ i5-3610ME
Intel® Core™ i3-3120ME
Intel® Celeron® 1020E

Optional Configuration

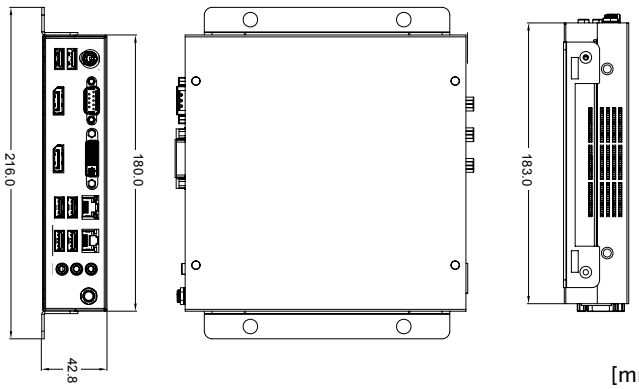
2.5" HDD
2.5" SSD
mini-PCIe mSATA

Ordering Information

BX-700W-DC00000
Fanless box without CPU processor, memory, OS

Specifications

System	CPU	Intel® 3rd gen. Core™ mobile processor (optional), rPGA 989 (Socket G2)
	Chipset	Intel® QM77 PCH
	BIOS	AMI UEFI BIOS
	Memory	2x 204 pin SO-DIMM, DDR3 1600/1333/1066 MHz/Max:16GB (non-ECC, sandard/low voltage)
Graphic	Controller	-
	Video RAM	Main memory shared
Display I/F		1x DVI-I, 2x Display Port
Audio	CODEC	Realtek® ALC887 HD
Ethernet	Controller	1x Intel® 82579LM GbE PHY LAN with iAMT supported 1x Intel® i210AT PCIe GbE LAN
H/W monitor	Watchdog timer	255-level
Expansion	Mini-PCIe	1 slot
	PCIe	N/A
Interface	SATA	1x 2.5" SATA bay
	mSATA	Share with Mini-PCIe socket
	RJ-45	2x LAN ports
	Audio	1x Line-out, 1x Line-in, 1x Mic-in
	USB	2x USB3.0, 6x USB 2.0
	Serial	4x RS-232C
	PS/2	1x PS/2 port for keyboard and mouse
	Antenna	1x RF SMA straight jack
Power source power adaptor		DC-in 19V/90W
Operating temperature		0 ~ 50°C w/ SSD
Operating humidity		10 ~ 90%RH (no-condensation)
Storage temperature		-20 ~ 80°C
Storage humidity		10 ~ 90%RH (no-condensation)
Physical dimension (mm)		180 x 182 x 42
Characteristics weight		1.8 kg
Mounting		VESA mounting
Certification EMC safety		FCC, CE, C-Tick, VCCI, BSMI, CB, UL
Software operating support		Windows 7 (32/64-bit), Windows 8 (32/64-bit)



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 All specifications are subject to change without notice

Fanless BOX Computer with Intel® Atom™ D2550 Processor
4x COM, 2x Expansion Slots

BX-130A

Fanless Design | Cost Saving | Compact Design

Features

- Ultra low power fanless design
- Dual Intel® GbE LAN
- Cost effective
- Dual Mini-PCIe for expansion

Packing List

1x BOX Computer

1x User's manual

2x Mounting bracket kits

1x Driver CD

1x AC adapter & AC power cord

Optional Configuration

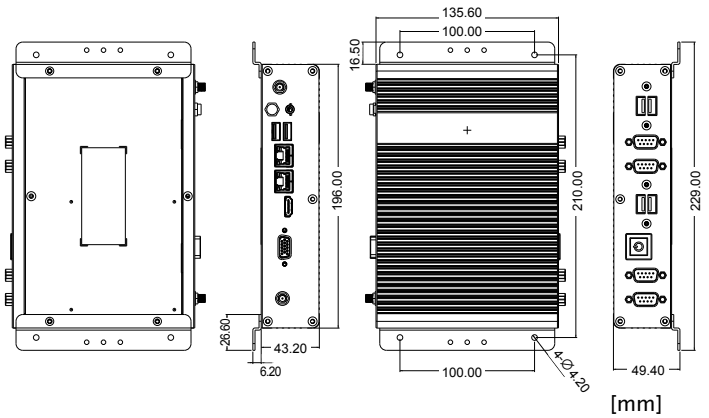
2.5" HDD
2.5" SSD

Ordering Information

BX-130A-DC40000
Fanless box with D2550 CPU processor, 2GB memory

Specifications

System	CPU	Intel® AtomTM D2550 1.86GHz processor
	Chipset	Intel® NM10 Express
	BIOS	AMI SPI BIOS
	Memory	1x 204 pin SO-DIMM, DDR3 1066MHz / Max : 4GB
Graphic	Controller	Intel® Graphics Media Accelerator (GMA) 3650
	Video RAM	Main memory shared
Display I/F		1x HDMI, 1x VGA
Audio	CODEC	Realtek® ALC887 HD
Ethernet	Controller	2x Intel® 82583V PCIe GbE LAN
H/W monitor	Watchdog timer	255-level
Expantion	Mini-PCIe	1 slot
	PCIe	N/A
Interface	SATA	1x 2.5" SATA bay
	mSATA	1 slot
	RJ-45	2x LAN ports
	Audio	1x Line-out
	USB	6x USB 2.0
	Serial	1x RS-232C/422/485, 3x RS-232C
	Antenna	2x antenna holes
Power source power adaptor		DC-in 12V only
Operating temperature		0 ~ 40°C
Operating humidity		10 ~ 90%RH (no-condensation)
Storage temperature		-20 ~ 80°C
Storage humidity		10 ~ 90%RH (no-condensation)
Physical dimension (mm)		196 x 136 x 43
Characteristics weight		1.20 kg
Certification EMC safety		FCC, CE, C-Tick, VCCI, BSMI
Software operating support		Windows 7 (32-bit), Windows XP (32-bit)



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All specifications are subject to change without notice

Fanless BOX Computer with Intel® Atom™ D2550
2x LAN, 4x COM, SATA Drive Bay

BX-S959

A5 Small size | 2.5" Bay | 4x COM | Fanless Design

Features

- Dual LAN / 4x USB2.0 / 4x COM / CFast and other rich expansion interface
- Dual Intel® GbE LAN
- Cost effective
- Easy replacement of the storage device 2.5-inch SATA drive bay

Packing List

1x BOX Computer

1x User's manual

2x Mounting bracket kits

Optional Configuration

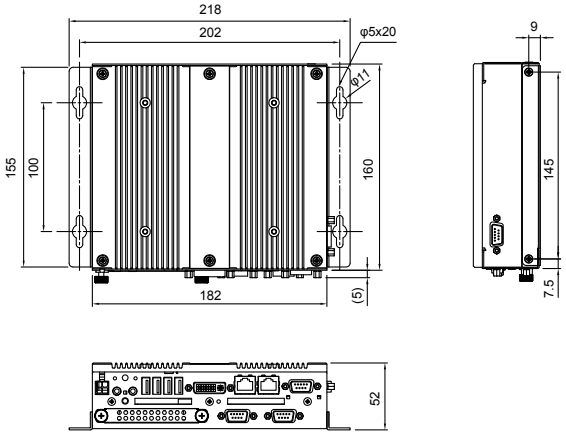
2.5" HDD
2.5" SSD
CFast card

Ordering Information

BX-S959D-DC6000
Atom D2550, 2GB DDR3, Without OS

Specifications

System	CPU	Intel® Atom™ D2550 1.86GHz processor
	Chipset	Intel® NM10 Express
	BIOS	AMI SPI BIOS
	Memory	1x 204 pin SO-DIMM, Single-channel DDR3 1066/ 800MHz / Max : 4GB (non-ECC)
Graphic	Controller	Intel GMA 3650 Graphics
	Video RAM	Main memory shared
Display I/F		1x DVI-I
Audio	CODEC	Realtek® ALC892 HD
Ethernet	Controller	2x Realtek® RTL8111E PCIe GbE LAN
H/W monitor	Watchdog timer	255-level
Interface	SATA	1x 2.5" SATA bay
	mSATA	N/A
	CFast	1x socket
	RJ-45	2x LAN ports
	Audio	1x Line-out, 1x Mic-in
	USB	4x USB 2.0
	Serial	1x RS-232C/422/485, 1x RS422/485, 2x RS-232C
Power source power adaptor		DC-in 12V-24V
Power supply		N/A
Operating temperature		0 ~ 50°C
Operating humidity		10 ~ 90%RH (no-condensation)
Storage temperature		-10 ~60°C
Storage humidity		10 ~ 90%RH (no-condensation)
Physical dimension (mm)		182 x 160 x 52
Characteristics weight		1.9 kg
Certification EMC safety		FCC, CE
Software operating support		Windows XP (32-bit), Windows 7 (32-bit)



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 All specifications are subject to change without notice

Fanless BOX Computer with Intel® Atom™ D2550
2x LAN, 2x COM

BX-S958

Fanless Design | A5 Small size | Dual CFast

Features

- Ultra low power fanless design
- Dual Intel® GbE LAN
- Cost effective

Packing List

1x BOX Computer

1x User's manual

2x Mounting bracket kits

Optional Configuration

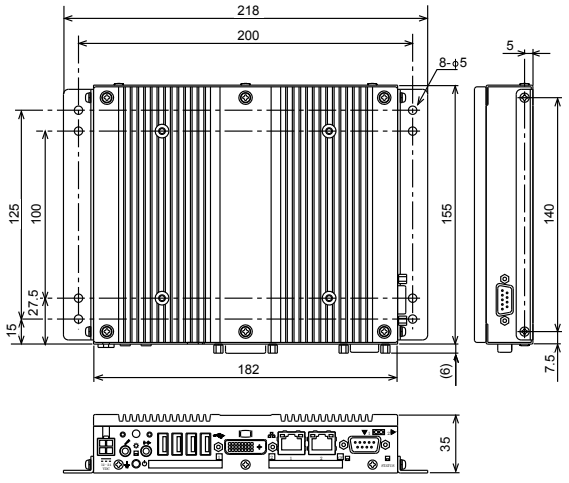
AC adapter
CFast card

Ordering Information

BX-S958D-DC6000
Atom D2550, 2GB DDR3, without OS

Specifications

System	CPU	Intel® Atom™ D2550 1.86GHz processor
	Chipset	Intel® NM10 Express
	BIOS	AMI SPI BIOS
	Memory	1x 204 pin SO-DIMM, Single-channel DDR3 1066/ 800MHz / Max : 4GB, (non-ECC)
Graphic	Controller	Intel GMA 3650 Graphics
	Video RAM	Main memory shared
Display I/F		1x DVI-I
Audio	CODEC	Realtek® ALC892 HD
Ethernet	Controller	2x Realtek® RTL8111E PCIe GbE LAN
H/W monitor	Watchdog timer	255-level
Interface	mSATA	N/A
	CFast	2 sockets
	RJ-45	2x LAN ports
	Audio	1x Line-out, 1x Mic-in
	USB	4x USB 2.0
	Serial	2x RS-232C
Power source power adaptor		DC-in 12V-24V
Power supply		N/A
Operating temperature		0 ~ 50°C
Operating humidity		10 ~ 90%RH (no-condensation)
Storage temperature		-10 ~60°C
Storage humidity		10 ~ 90%RH (no-condensation)
Physical dimension (mm)		182 x 155 x 35
Characteristics weight		1.4 kg
Certification EMC safety		FCC, CE
Software operating support		Windows XP (32-bit), Windows 7 (32-bit)



[mm]

Industrial

Selection guide

Motherboards

Formfactor		ATX		
Model		**GMB-C2160-LLVA**	**GMB-C2165-LLVA**	**GMB-Q7710-LLVA**
Processor		Intel® 3rd gen.Xeon	3rd gen.Xeon	Intel® 3rd gen.Core™
Processor type		LGA1155	LGA1155	LGA1155
Chipset		Intel® C216 PCH	Intel® C216 PCH	Intel® Q77 PCH
Memory sockets		4	4	4
Memory capacity		Up to 32GB ECC supported	Up to 32GB ECC supported	Up to 32GB
LAN controller		2	2	2
USB	**3.0**	4	4	4
	2.0	8	6	8
Serial	**RS-232/422/485**	2	2	2
	RS-232	4	4	4
Storage	**SATA 3.0**	2	2	2
	SATA 2.0	4	3	3
	mSATA	N/A	1	N/A
	RAID	Yes	Yes	Yes
	IDE	1	N/A	N/A
	FDD	N/A	N/A	N/A
	Parallel port	N/A	N/A	1
Expan-sion	**PCIe(x16)**	2	2	1
	PCIe(x8)	N/A	N/A	N/A
	PCIe(x4)	2	1	1
	PCIe(x1)	N/A	N/A	N/A
	PCI	3	4	5
	Mini PCIe	1	N/A	1
Digital I/O		Yes	Yes	Yes
Audio	**CODEC**	Realtek® ALC886 HD	Realtek® ALC886 HD	Realtek® ALC887 HD
	Interfaces	Line-in / Line-out / MIC-in	Line-in / Line-out / MIC-in	Line-in / Line-out / MIC-in
iAMT		Yes	Yes	Yes
Watchdog		Yes	Yes	Yes
Power input		Standard ATX	Standard ATX	Standard ATX
Dimensions		305 x 244 mm	305 x 244 mm	305 x 244 mm
Page		39	40	41

Motherboards

Fromfactor		ATX	Micro-ATX	
Model		**GMB-AQ670-LLVA**	**GMR-Q8700-LLVA**	
Processor		Intel® 2nd gen.Core™	Intel® 4th gen.Core™	
Processor type		LGA1155	LGA1150	
Chipset		Intel® Q67 PCH	Intel® Q87 PCH	
Memory sockets		4	4	
Memory capacity		Up to 32GB	Up to 32GB	
LAN controller		2	2	
USB	**3.0**	N/A	4	
	2.0	12	8	
Serial	**RS-232/422/485**	N/A	2	
	RS-232	6	8	
Storage	**SATA 3.0**	2	4	
	SATA 2.0	4	N/A	
	mSATA	N/A	1	
	RAID	Yes	Yes	
	IDE	N/A	N/A	
	FDD	N/A	N/A	
	Parallel port	N/A	1	
Expan-sion	**PCIe(x16)**	1	1	
	PCIe(x8)	N/A	1	
	PCIe(x4)	N/A	N/A	
	PCIe(x1)	N/A	N/A	
	PCI	6	4	
	Mini PCIe	N/A	1	
Digital I/O		Yes	Yes	
Audio	**CODEC**	Realtek® ALC892 HD	Realtek® ALC887 HD	
	Interfaces	Line-in / Line-out / MIC-in	Line-in / Line-out / MIC-in	
iAMT		Yes	Yes	
Watchdog		Yes	Yes	
Power input		Standard ATX	Standard ATX	
Dimensions		305 x 244 mm	244 x 244 mm	
Page		42	43	

Intel® 3rd gen. Core™ Xeon and Pentium Processor ATX Industrial Workstation Motherboard

GMB-C2160-LLVA

Workstation | Xeon Processor | ECC Support | 3x PCI Slots

Features

- Intel® Pentium® and Xeon® E3-1200 series processors
- 2x PCIe(x16) , 2x PCIe(x4), 1x Mini PCIe socket, 3x PCI slots
- 3 independent displays support 1x DVI-I, 1x DVI-D, 1x HDMI
- System memory support ECC/Non-ECC

Packing List

1x GMB-C2160-LLVA motherboard

1x Quick installation guide

1x DVD driver disk

2x Serial ATA data cables

2x Two USB port cables with bracket

2x COM ports cables with bracket

1x I/O shield

Optional Configuration

Memory (DDR3 DIMM ECC/non ECC)

Recommended CPU List

Intel® Xeon® E3-1275v2
Intel® Xeon® E3-1225v2
Intel® Pentium® G2120

Ordering Information

GMB-C2160-LLVA
ATX IMB LGA1155 CPU, C216 chipset DDR3/ DVI-I/DVI-D/HDMI/Dual GbE/COM/Audio/USB

Specifications

System	CPU	Intel® 3rd gen. Core™ Xeon processor
	CPU type	LGA1155
	BIOS	AMI SPI BIOS
	Chipset	Intel® C216 PCH
	Memory type	4x 240-pin DIMM, support up to 32GB dual-channel DDR3 1600/1333 SDRAM (Intel® 3rd gen. Core™) or 1333/1066 (Intel® 2nd gen. Core™)
Graphic	Controller	Intel® GMA HD 4000P
	Video RAM	Main memory shared
Displays		1x HDMI, 1x DVI-I, 1x DVI-D
Audio	Codec	Realtek ALC886 HD
Controller		LAN1 : Intel® 82579LM with iAMT 8.0 GbE PHY, LAN2: Intel® 82574L GbE controller
Watchdog Timer		Reset: 1 - 255 sec./ min. per step
H/W Status Monitor		Monitoring temperature, voltage and cooling fan status. Auto throtting control when CPU overheats
Expansion	Mini-PCIe	1slot: Half size and/or full size Mini-PCIe card supported
	PCIe	2x PCIe(x16) slots: gen. 3.0 for Intel® 3rd gen. Core™ or gen. 2.0 for Intel® 2nd gen. Core™, 2x PCIe(x4) slots:1x4 signal and 1 x1/x4 signal
	PCI	3x slots
	TPM	1x Optional TPM connector
Interface	SATA	2x SATA 3.0, 4x SATA 2.0
	IDE	1x port
	RJ-45	2x LAN ports
	USB	4x USB 3.0 8x USB 2.0
	Serial	2x RS-232C/422/485, 4x RS-232C
	Audio	1x Line-out, 1x Line-in, 1x Mic-in
	PS/2	1 port port by Y-cable for keyboard and mouse
	GPIO	8-bit programmable digital input/output
Wake on LAN		Yes
Power type		ATX (support AT Mode)
Operating temperature		0 ~ 60℃
Operating humidity		5 ~ 95%RH (no-condensation)
Physical dimension (mm)		305 x 244

All specifications are subject to change without notice

GMB-C2165-LLVA

Workstation | Xeon Processor | ECC Support | 4x PCI Slots

Features

- Intel® Pentium® and Xeon® E3-1200 series processors
- 2x PCIe(x16), 1x PCIe(x4), 4x PCI slots
- 3 independent displays support
- 1x VGA, 1x DVI-D, 1x HDMI
- System memory support ECC/Non-ECC

Packing List

1x GMB-C2165-LLVA motherboard

1x Quick installation guide

1x DVD driver disk

1x DVI-D + VGA cable with bracket

1x Serial ATA data cable

1x I/O shield

2x Two USB port cables

2x COM port cables

Optional Configuration

Memory (DDR3 DIMM ECC/non ECC)

Recommended CPU List

Intel® Xeon® E3-1275v2
Intel® Xeon® E3-1225v2
Intel® Pentium® G2120

Ordering Information

GMB-C2165-LLVA
ATX IMB LGA1155 CPU, C216 chipset DDR3/ HDMI/VGA/DVI-D/Dual GbE/COM/Audio/USB

Specifications

System	CPU	Intel® 3rd gen. Core™ Xeon processor
	CPU type	LGA1155
	BIOS	Pheonix UEFI BIOS
	Chipset	Intel® C216 PCH
	Memory type	4x 240-pin DIMM, support up to 32GB dual-channel DDR3 1600/1333 SDRAM (Intel® 3rd gen. Core™) or 1333/1066 (Intel® 2nd gen. Core™)
Graphic	Controller	Intel® GMA HD 4000P
	Video RAM	Main memory shared
Displays		1x HDMI, 1x DVI-D, 1x VGA
Audio	Codec	Realtek ALC886 HD
Controller		1x Intel® 82579LM GbE PHY LAN with iAMT 8.0 1x Intel® 82583V PCIe GbE LAN
Watchdog Timer		Reset: 1 - 255 sec./ min. per step
H/W Status Monitor		Monitoring temperature, voltage and cooling fan status. Auto throtting control when CPU overheats
Expansion	Mini-PCIe	N/A
	PCIe	2x PCIe(x16) slots: gen. 8.0 GT/s, x16 signal or 2 x8 signal, PCIe (x4) slots x1:1x 4 signal and 1 x1/x4 signal
	PCI	4x slots
	TPM	1x Optional TPM connector
Interface	SATA	2x SATA 3.0, 3x SATA 2.0
	mSATA	N/A
	RJ-45	2x LAN port
	USB	4x USB 3.0 6x USB 2.0
	Serial	2x RS-232C/422/485, 4x RS-232C
	Audio	1x Line-out, 1x Line-in, 1x Mic-in
	GPIO	8-bit programmable digital input/output
Wake on LAN		Yes
Power type		ATX (Support AT Mode)
Operating temperature		0 ~ 60℃
Operating humidity		5 ~ 95%RH (no-condensation)
Physical dimension (mm)		305 x 244

Intel® 3rd gen. Core™ i7/ i5/ i3 Processor
ATX Industrial Motherboard

GMB-Q7710-LLVA

6x COM | Giga LAN | mSATA Slot | Mini-PCIe

Features

- Intel® LGA1155 socket supports 3rd and 2nd gen. Intel® Core™ processor
- 4x DDR3 1600MHz UDIMMs up to 32GB
- 1x PCIe(x16) gen. 3, 1x PCIe(x4) , 5x PCI slots. 1x Mini-PCIe
- 2x SATA 3.0 and 3x SATA 2.0 support AHCI, RAID 0, 1, 5, 10

Packing List

1x GMB-Q7710-LLVA motherboard

1x Quick installation guide

1x DVD driver disk

2x Serial ATA data cables

1x Two USB ports cable with bracket

2x Two COM ports cables with bracket

1x Parallel port cable with bracket

1x PS2 Y-cable

1x I/O shield

Optional Configuration

Memory (DDR3 DIMM non ECC)

Recommended CPU List

Intel® Core™ i7-3770
Intel® Core™ i5-3550S
Intel® Core™ i3-3220
Intel® Pentium® G2120

Ordering Information

GMB-Q7710-LLVA
ATX IMB LGA1155 CPU, Q77 chipset w/o ISA slot

Specifications

System	CPU	Intel® 3rd gen. Core™ i7/i5/i3/Pentium/ Celeron® processor
	CPU type	LGA1155
	BIOS	AMI SPI BIOS
	Chipset	Intel® Q77 PCH
	Memory type	4x Dual-channel DDR3, 1066/1333/1600 MHz (non-ECC) Up to 32GB
Graphic	Controller	Intel® CPU integrated
	Video RAM	Main memory shared
Displays		1x Display port, 1x DVI-D, 1x VGA
Audio	Codec	Realtek ALC887 HD
Controller		1x Intel® 82579LM GbE PHY LAN with iAMT 8.0 1x Intel® 82583V PCIe GbE LAN
Watchdog Timer		255-level
H/W Status Monitor		Monitoring temperature, voltage and cooling fan status. Auto throttling control when CPU overheats
Expansion	Mini-PCIe	1 slot
	PCIe	1x PCIe(x16) : gen. 3.0 (8.0 GT/s) 1x PCIe(x4)
	ISA	N/A
	PCI	5 slots (PCI 2.3)
	Parallel port	1 port
	TPM	1x Optional TPM connector
Interface	SATA	2x SATA 3.0, 3x SATA 2.0
	IDE	N/A
	mSATA	1 slot
	RJ-45	2x LAN ports
	USB	4x USB 3.0 (rear) 8x USB 2.0 (2x rear; 6x internal)
	Serial	2x RS-232C/422/485, 4x RS-232C
	Audio	1x Line-out, 1x Line-in, 1x Mic-in
	PS/2	1 port port by Y-cable for keyboard and mouse
	GPIO	8-bits (4x GPI; 4x GPO)
Wake on LAN		Yes
Power type		ATX (Support AT mode)
Operating temperature		0 ~ 60℃
Operating humidity		5 ~ 95%RH (no-condensation)
Physical dimension (mm)		305 x 244

All specifications are subject to change without notice

GMB-AQ670-LLVA

6x COM | Giga LAN | 6x PCI Slots

Features

- Intel® LGA1155 socket supports 2nd gen. Intel® Core™ processor
- 4x DDR3 1333MHz UDIMMs up to 32GB
- 1x PCIe(x16) gen. 3, 6x PCI slots
- 2x SATA 3.0 and 4x SATA 2.0 support AHCI, RAID 0, 1, 5, 10

Packing List

1x GMB-AQ670-LLVA motherboard

1x Quick installation guide

1x DVD driver disk

2x Serial ATA data cables

1x Two USB port cable with bracket

2x COM port cables with bracket

1x I/O shield

Optional Configuration

Memory (DDR3 DIMM non ECC)

Recommended CPU List

Intel® Core™ i7-2600
Intel® Core™ i5-2400
Intel® Core™ i3-2120
Intel® Pentium® G850

Ordering Information

GMB-AQ670-LLVA
ATX IMB LAG1155 CPU, Q87 chipset DDR3/ VGA/HDMI/Dual GbE/COM/Audio/USB/6 PCI slots

Specifications

System	CPU	Intel® 2nd gen. Core™ i7/i5/i3 processor
	CPU type	LGA1155
	BIOS	AMI SPI ROM
	Chipset	Intel® Q67 PCH
	Memory type	4x Dual-channel DDR3, 1066/1333/1600MHz (non-ECC) Up to 32GB
Graphic	Controller	Intel® CPU integrated
	Video RAM	Main memory shared
Displays		1x VGA, 1x HDMI
Audio	Codec	Realtek ALC892 HD
Controller		1x Intel® 82579LM GbE PHY LAN with iAMT 8.0 1x Intel® 82583V PCIe GbE LAN
Watchdog Timer		Reset: 1 - 255 sec./ min. per step
H/W Status Monitor		Monitoring temperature, voltage and cooling fan status. Auto throttling control when CPU overheats
IExpansion	Mini-PCIe	N/A
	PCIe	1x PCIe(x16) : gen. 3.0 (8.0 GT/s)
	ISA	N/A
	PCI	6 slots (PCI 2.3)
	Parallel port	N/A
	TPM	N/A
Interface	SATA	2x SATA 3.0, 4x SATA 2.0
	IDE	N/A
	mSATA	N/A
	RJ-45	2x LAN ports
	USB	12x USB 2.0
	Serial	6x RS-232C
	Audio	1x Line-out, 1x Line-in, 1x Mic-in
	PS/2	1 port port by Y-cable for keyboard and mouse
	GPIO	8-bit programmable Digital Input/Output
Wake on LAN		Yes
Power type		ATX (Support AT mode)
Operating temperature		0 ~ 60℃
Operating humidity		5 ~ 95%RH (no-condensation)
Physical dimension (mm)		305 x 244

Intel® 4th gen. Core™ i7/ i5/ i3 Processor
Micro-ATX Industrial Motherboard

GMR-Q8700-LLVA

10x COM | Giga LAN | mSATA Socket

Features

- Intel® Haswell Series CPU to maximize performance
- 10 COM ports for flexible applications
- Multiple video outputs: DVI-I, DP (3 independent displays)
- Plenty USB ports for more peripherals (8x USB 2.0, 4x USB 3.0)

Packing List

1x GMR-Q8700-LLVA series Micro-ATX motherboard
1x Quick installation guide
1x DVD driver disk
2x Serial ATA data cables
1x Two COM ports cable with bracket
1x Four COM ports cable
1x I/O shield

Optional Configuration

Memory (DDR3 DIMM non ECC)

Recommended CPU List

Intel® Core™ i7-4770S
Intel® Core™ i7-4770TE
Intel® Core™ i5-4570S
Intel® Core™ i5-4570TE
Intel® Core™ i3-4330
Intel® Core™ i3-4330TE
Intel® Pentium® G3420

Ordering Information

GMR-Q8700-LLVA
Micro-ATX IMB LAG1150 CPU, Q87 chipset DDR3/DVI-I/2x DP ports/Dual GbE/10 COM/ Audio/USB

Specifications

System	CPU	Intel® Desktop H3 Core™ i7/i5/i3/Celeron® Quad/Duo processor (Max. TDP: 65W)
	CPU type	LGA1150
	BIOS	AMI SPI BIOS
	Chipset	Intel® Q87 PCH
	Memory type	4x Dual-channel DDR3/DDR3L, 1333/1600 MHz (non-ECC), Up to 32GB
Displays		2x Display port, 1x DVI-I
Audio	Codec	Realtek ALC887 HD
Controller		1x Intel® i217LM GbE PHY LAN with iAMT 9.0, 1x Intel® i210AT PCIe GbE LAN
USB		4x USB 3.0 ports 8x USB 2.0 ports (6x rear, 2x internal)
Watchdog Timer		255-level
H/W Status Monitor		Monitoring temperature, voltage and cooling fan status. Auto throttling control when CPU overheats
Expansion	Mini-PCIe	1x Mini-PCIe
	PCIe	1x PCIe(x16) slot: gen. 3.0 (8.0 GT/s), 1x PCIe(x8) (with x4 singal only) slot
	PCI	2 slots (PCI 2.3)
	Parallel port	1 port
	TPM	1x TPM header
Interface	SATA	4x SATA 3.0
	mSATA	1x m-SATA socket
	RJ-45	2x LAN ports
	Serial	COM ports (10x internal)
	Audio	1x Line-out, 1x Line-in, 1x Mic-in
	PS/2	PS/2 port by Y-cable for keyboard and mouse
	GPIO	8-bits (4x GPI; 4x GPO)
Wake on LAN		Yes
Power type		ATX-24P, ATX-4P
Operating temperature		0 ~ 60℃
Operating humidity		5 ~ 95%RH (no-condensation)
Physical dimension (mm)		244 x 244

All specifications are subject to change without notice

Industrial

Selection guide

Single Board Computers

Feature		PICMG 1.3		
Model		SPI-C2160-LLVA	SPI-Q7700-LLVA	SPI-H6100-LLVA
Processor		Intel® 3rd gen. Core™/ Xeon	Intel® 3rd gen. Core™	Intel® 2nd gen. Core™
Processor type		LGA1155	LGA1155	LGA1155
System chipset		C216 PCH	Q77 PCH	H61 PCH
Memory sockets		2	2	2
Memory capacity		up to 16GB ECC supported	up to 16GB	up to 16GB
Ethernet controller		2	2	2
Displays		DVI-I / HDMI	DVI-D + HDMI	VGA
USB	USB 3.0	4	4	N/A
	USB 2.0	10	10	4
Serial	RS-232/422/485	1	1	1
	RS-232	1	1	3
Parallel port		1	1	1
Storage	SATA 3.0	2x on SBC	2x on SBC	N/A
	SATA 2.0	2x on SBC 2x Golden Finger	2x on SBC 2x Golden Finger	4x on SBC
	RAID	Yes	Yes	N/A
	IDE	N/A	N/A	N/A
	FDD	1	1	1
Expansion	PCIe(x16)	1	1	1
	PCIe(x8)	N/A	N/A	N/A
	PCIe(x4)	1	N/A	N/A
	PCIe(x1)	N/A	N/A	4
	PCI	4	4	4
	ISA	N/A	N/A	N/A
Digital I/O		Yes	Yes	Yes
Audio	CODEC	ALC662	ALC662	N/A
iAMT		Yes	Yes	N/A
Watchdog		Yes	Yes	Yes
Power input		ATX (Support AT mode)	ATX (Support AT mode)	ATX (Support AT mode)
Dimensions		338.5 x 126.39mm	338.5 x 126.39mm	338.5 x 122mm
Page		47	48	49

Single Board Computers

Feature		PICMG 1.0		
Model		SPI-H6150-LLVA		
Processor		Intel® 2nd gen. Core™		
Processor type		LGA1155		
System chipset		BD82H61 PCH		
Memory sockets		2		
Memory capacity		up to 16GB		
Ethernet controller		2		
Displays		DVI-D / VGA		
USB	USB 3.0	2		
	USB 2.0	10		
Serial	RS-232/422/485	1		
	RS-232	1		
Parallel port		1		
Storage	SATA 3.0	N/A		
	SATA 2.0	4x on SBC		
	RAID	Yes		
	IDE	N/A		
	FDD	1		
Expansion	PCIe(x16)	N/A		
	PCIe(x8)	N/A		
	PCIe(x4)	N/A		
	PCIe(x1)	N/A		
	PCI	4		
	ISA	Yes		
Digital I/O		Yes		
Audio	CODEC	ALC886		
iAMT		N/A		
Watchdog		Yes		
Power input		ATX (Support AT mode)		
Dimensions		338.5 x 122mm		
Page		50		

Intel® Xeon® E3-1200v2/Core™ i3 Series Processor
PICMG 1.3 Workstation Single Board Computer

SPI-C2160-LLVA

Xeon Processor | ECC Support | iAMT 8.0 | RAID

Features

- Supports Intel® Xeon E3-1200v2 series/Core™ i3 processors in LGA1155 package
- Delivers up to 16GB maximum DDR3 1333/ 1600 ECC SDRAM on two DIMM sockets
- Supports multiple display by DVI-I (DVI-D+ VGA) and HDMI
- 2x COM, 6x SATA: 2x SATA 3.0, 4x SATA 2.0

Packing List

1x SPI-C2160-LLVA full size SBC

1x Cable kit for FDD+PRN with Bracket

1x DVD driver disk

1x SATA III Cable

1x DVI-D + VGA cable with Bracket

1x Dual head COM port cable with Bracket

1x SATA II cable

Optional Configuration

Memory (DDR3 DIMM ECC/non ECC)

Recommended CPU List

Intel® Xeon® E3-1275v2
Intel® Xeon® E3-1225v2
Intel® Pentium® G2120

Ordering Information

SPI-C2160-LLVA
Full size SBC

Specifications

System	CPU	Intel® 3rd gen. Intel® Core™ i7/ Core™ i5/ Core™ i3/ Pentium®/ Celeron® CPU
	CPU type	LGA1155
	BIOS	Phoenix UEFI BIOS
	Chipset	Intel® C216 PCH
	Memory type	2x 240-pin ECC DIMM sockets, DDR3 1333/ 1600 SDRAM, supports ECC Up to 16G
Displays		1x DVI-I on Bracket, 1x HDMI
Audio	Codec	Realtek ALC662-GR 7.1 channel HD Audio
Controller		1x Intel® 82579LM, 1x Intel® 82574L GbE
Power state		S1, S3, S4, S5
Watchdog Timer		Reset: 1 - 255 sec/ min per step
Expantion	PCIe	1x PCIe(x16) 2x PCIe(x8) 1x PCIe(x8) + 2x PCIe(x4)
	PCI	4x PCI devices at 32-bit 33 MHz
	Parallel port	1 port
Interface	SATA	2x SATA 3.0, 4x SATA 2.0
	RJ-45	2x LAN ports
	USB	4x USB 3.0 on board (Two ports on board, two ports on Bracket) 6x USB 2.0 on SBC (pin-header) 4x USB 2.0 throught golden finger
	Serial	1x RS-232, 1x RS-232/422/485
	Audio	1x Line-out, 1x Line-in, 1x Mic-in
	PS/2	PS/2 Keyboard, PS/2 Mouse on board box header
	FDD	1x FDD channel on board box header
	GPIO	8-bit programmable digital input/ output
Wake up on LAN		Yes
Power type		ATX (Support AT mode)
Power consumption		Typical: +12V@6.96A ; +5V@0.32A
Operating temperature		0 - 55℃
Operating humidity		5 - 95%RH (no-condensation)
Physical dimension (mm)		338.5 x 126.39

 All specifications are subject to change without notice

Intel® 3rd gen. i7/ i5/ i3/ Celeron® Processor
PICMG 1.3 Single Board Computer

SPI-Q7700-LLVA

3rd gen. Processor | 4x USB3.0 | iAMT 8.0 | RAID

Features

- 3rd gen. Intel® Core™ platform, Intel® Q77 Chipset
- Supports multiple display by DVI-I (DVI-D+ VGA) and HDMI
- Support RAID 0, 1, 5, 10

Packing List

1x SPI-Q7700-LLVA full size SBC

1x Cable kit for FDD + PRN with Bracket

1x DVD driver disk

1x SATA III Cable

1x SATA II Cable

1x Dual head COM port cable with Bracket

1X DVI-D + VGA cable with bracket

Optional Configuration

Memory (DDR3 DIMM ECC/non ECC)

Recommended CPU List

Intel® Core™ i7-3770
Intel® Core™ i5-3550S
Intel® Core™ i3-3220
Intel® Pentium® G2120

Ordering Information

SPI-Q7700-LLVA
Full size SBC

Specifications

System	CPU	Intel® 3rd gen. Intel® Core™ i7/ Core™ i5/ Core™ i3/ Pentium®/ Celeron® CPU
	CPU type	LGA1155
	BIOS	Phoenix UEFI BIOS
	Chipset	Intel® Q77 PCH
	Memory type	2x 240-pin DIMM sockets, DDR3 1333/1600 SDRAM, non-supports ECC Up to 16G
Displays		1x DVI-I on Bracket, 1x HDMI
Audio	Codec	Realtek ALC662-GR 7.1 channel HD Audio
Controller		1x PCIe(x16)Intel® 82579LM, 1x PCIe(x16)Intel® 82574L GbE
Power state		S1, S3, S4, S5
Watchdog Timer		Reset: 1 - 255 sec/ min per step
Expantion	PCIe	1x PCIe(x16)
	PCI	4x PCI devices at 32-bit 33 MHz
	Parallel port	1 port
Interface	SATA	2x SATA 3.0, 4x SATA 2.0
	RJ-45	2x LAN ports
	USB	4x USB 3.0 on board (Two ports on board, two ports on Bracket) 6x USB 2.0 on SBC (pin-header) 4x USB 2.0 throught golden finger
	Serial	1x RS-232, 1x RS-232/422/485
	Audio	1x Line-out, 1x Line-in, 1x Mic-in
	PS/2	PS/2 Keyboard, PS/2 Mouse on board box header
	FDD	1x FDD channel on board box header
	GPIO	8-bit programmable digital input/ output
Wake up on LAN		Yes
Power type		ATX (Support AT mode)
Power consumption		Typical: +12V@4.85A ; +5V@3.4A
Operating temperature		0 - 55℃
Operating humidity		5 - 95%RH (no-condensation)
Physical dimension (mm)		338.5 x 126.39

Intel® 2nd gen. i7/ i5/ i3/ Celeron® Processor
PICMG 1.3 Single Board Computer

SPI-H6100-LLVA

2nd gen. Processor | 10x USB2.0 | 4x COM | Cost Save

Features

- Intel® 2nd gen. Intel® Core™ platform, Intel® H61 Chipset
- Dual Intel® Gigabit Ethernet
- 4x COM, 10x USB 2.0, 4x SATA 2.0, 8-bit DIO

Packing List

1x SPI-H6100-LLVA full size SBC

1x DVD drive disk

2x USB port cables with Bracket

2x COM port cables with Bracket

2x SATA II cables

Optional Configuration

Memory (DDR3 DIMM non ECC)
Backplane [BPME-1448]

Recommended CPU List

Intel® Core™ i7-2600
Intel® Core™ i5-2400
Intel® Core™ i3-2120
Intel® Pentium® G850

Ordering Information

SPI-H6100-LLVA
Full size SBC

Specifications

System	CPU	Intel® 2nd gen. Intel® Core™ i7/ Core™ i5/ Core™ i3/ Pentium®/ Celeron® CPU
	CPU type	LGA1155
	BIOS	AMI SPI BIOS
	Chipset	Intel® H61 PCH
	Memory type	2x 240-pin DIMM sockets, DDR3 1333/1600 SDRAM, non-supports ECC Up to 16G
Displays		1x VGA
Controller		2x Intel® W82574L PCI Express Gigabit Ethernet controllers
Power state		S1, S3, S4, S5
Watchdog Timer		Reset: 1 - 255 sec/ min per step
Expantion	PCIe	1x PCIe(x16) 4x PCIe(x1)
	PCI	4x PCI devices at 32-bit 33 MHz
	Parallel port	1 port
Interface	SATA	4x SATA 2.0
	RJ-45	2x LAN ports
	USB	2x USB 2.0 at Bracket (Standard USB Type A con- nector) 4x USB on SBC (pin-header) 4x USB throught golden finger
	Serial	3x RS-232, 1x RS-232/422/485
	PS/2	PS/2 Keyboard, PS/2 Mouse on board box header
	IrDA	1x IrDA
	FDD	1x FDD channel on board box header
	GPIO	8-bit programmable digital input/ output
Wake up on LAN		Yes
Power type		ATX (Support AT mode)
Power consumption		Typical: +12V@6.75A ; +4.9V@1.72A, 3.3V@1.27A
Operating temperature		0 - 60℃
Operating humidity		5 - 95%RH (no-condensation)
Physical dimension (mm)		338.5 x 122

Intel® 2nd gen. i7/ i5/ i3/ Celeron® Processor
PICMG 1.0 Single Board Computer

SPI-H6150-LLVA

2nd gen. Processor | 2x USB3.0 | DVI-D | PICMG 1.0

Features

- Intel® 2nd gen. Intel® Core™ platform, Intel® H61 Chipset
- Dual Intel® Gigabit Ethernet
- 2x COM, 2x USB 3.0, 4x SATA 2.0, 8-bit DIO
- Dual Independent Display: VGA and DVI-D

Packing List

1x SPI-H6150-LLVA full size SBC

1x Cable kit for FDD+PRN with bracket

2x SATA II cables

1x Cable Assy 4F-4F

1x Dual head COM port cable with bracket

1x DVD driver disk

Optional Configuration

Memory (DDR3 DIMM non ECC)

Recommended CPU List

Intel® Core™ i7-2600
Intel® Core™ i5-2400
Intel® Core™ i3-2120
Intel® Pentium® G850

Ordering Information

SPI-H6150-LLVA
Full size SBC

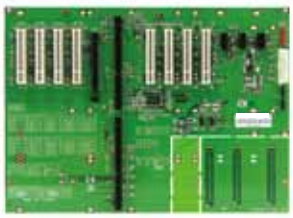
Specifications

System	CPU	Intel® 2nd gen. Intel® Core™ i7/ Core™ i5/ Core™ i3/ Pentium®/ Celeron® CPU
	CPU type	LGA1155
	BIOS	AMI EFI BIOS
	Chipset	Intel® BD82H61 PCH
	Memory type	2x 240-pin DIMM sockets, DDR3 1333/1600 SDRAM, non-supports ECC Up to 16G
Displays		1x VGA on Bracket, 1x DVI-D on board
Audio	Codec	Realtek ALC886-GR 7.1 Channel HD Audio
Controller		2x Intel® 82579LM and Intel® 82583V dual Gigabit Ethernet controllers
Power state		S1, S3, S4, S5
USB		2x USB 3.0 10x USB 2.0
Watchdog Timer		Reset: 1 - 255 sec/ min per step
Expantion	PCI	4x PCI devices at 32bit 33MHz
	Parallel port	1 port
Interface	SATA	4x SATA 2.0
	RJ-45	2x LAN ports
	Serial	1x RS-232, 1x RS-232/422/485
	Audio	1x Line-out, 1x Line-in, 1x Mic-in
	FDD	1x FDD channel on board box header
	GPIO	8-bit programmable digital input/ output
Power type		ATX (Support AT mode)
Power consumption		Typical: +12V@4.6A; +5V@3.8A
Operating temperature		0 - 60℃ (with better performance on 50℃)
Operating humidity		5 - 95%RH (no-condensation)
Physical dimension (mm)		338.5 x 122

Industrial

Selection guide

Backplanes

Feature	PICMG1.3		
Model	BPME-0614	BPME-1448	
			
System	1	1	
ISA slot	N/A	N/A	
PCI slot	4	8	
PCIe(x16) slot	N/A	1	
PCIe(x8) slot	1	N/A	
PCIe(x1) slot	N/A	3	
Power Input	ATX	ATX	

Industrial

Selection guide

Chassis

Feature	19" Rack Mount 4U-size		
Model	**CH070-ATX-4U**		
Equipped with power type	ATX Power supply		
Acceptable board size	Full Size		
Dimention (mm)	445 x 430 x 176		
Drive bay	External: 3x 5.25", 1x 3.5" Internal: 3x 3.5"		
Slot opening	7 or 15 x Full Height		

Feature	Wall Mount		
Model	**CH100-SBC-W**	**CH101-SBC-W**	**CH060-SBC-W**
Equipped with power type	ATX Power supply	ATX Power supply	ATX Power supply
Acceptable board size	Full Size	Full Size	Full Size
Dimention (mm)	408 x 330 x 175	408 x 330 x 175	410 x 254 x 175
Drive bay	External: 2x 5.25", 1x FDD" Internal: 1x 3.5"	External: 2x 5.25", 1x FDD" Internal: 1x 3.5"	External: 2x 5.25", 1x FDD" Internal: 1x 3.5"
Slot opening	Support 10/8 slots Backplane	Support 10/8 slots Backplane	Support 6 slots Backplane

19" 4U Industrial PC Chassis
ATX Motherboard Type

CH070-ATX-4U

Features

Optional front door with filter

Anti-vibration drive cage design

Optional front door with filter

Easy-assembly front 120mm fan with filter

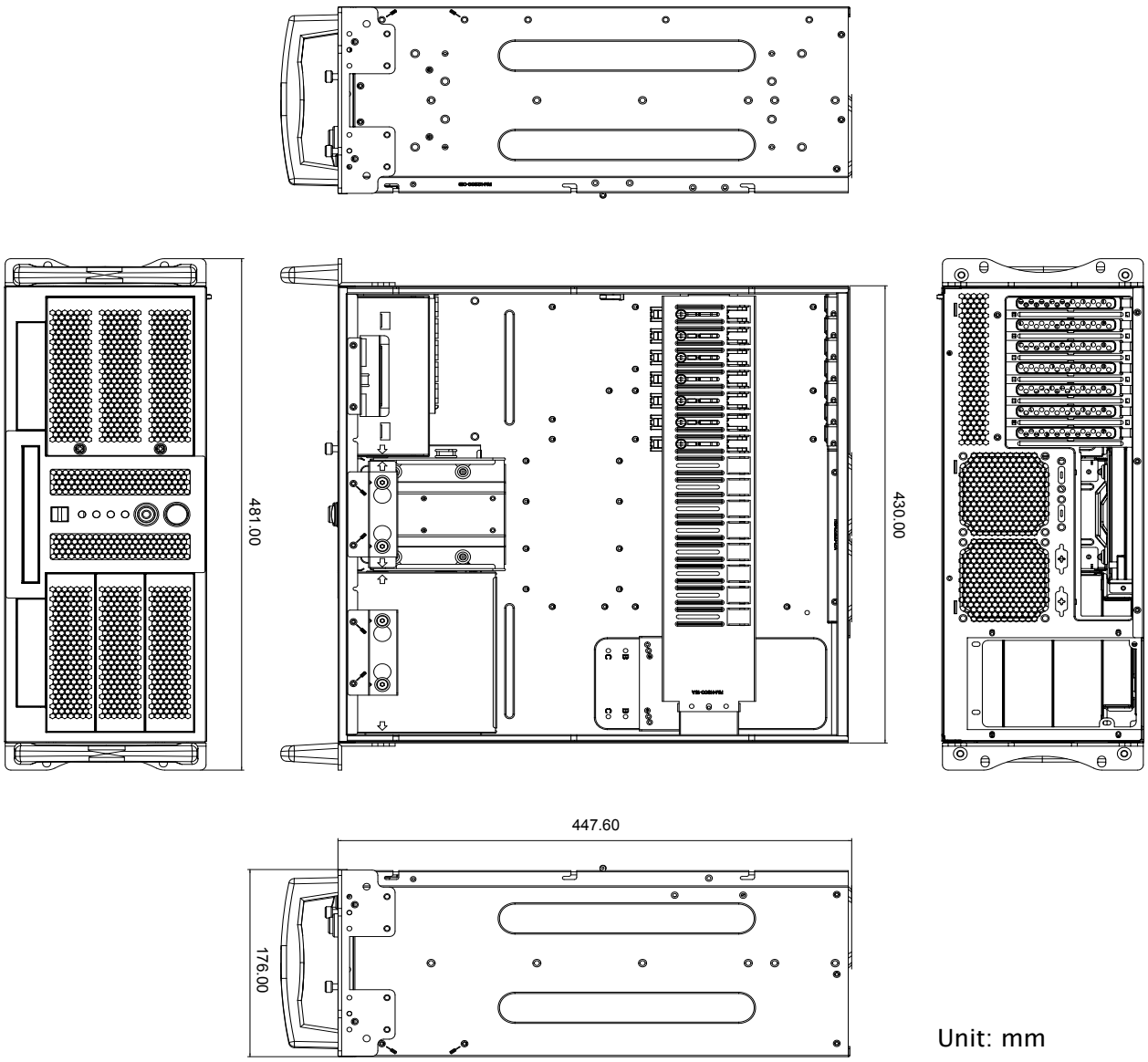
Easy-assembly internal drive cage for 4x3.5 HDD

2 x rear 80 mm fans

Specifications

M/B form factor	ATX (12" x 9.6")
Dimension (D x W X H)	445 x 430 x 176mm (17.5" x 16.9" x 6.9")
Drive bay	External: 3 x 5.25", 1 x 3.5", Internal: 3 x 3.5"
PSU form factor	PS/2 Single or Mini-redundant
Indicator	1x Power Status, 1x HDD Activity, 2x LAN Activity
Front control	Power On/ Off, System Reset, 2x USB 2.0
System security	Intrusion Switch, Key lock on front door
Cooling fan	Front: 1x 120mm (T-25mm), PWM Rear: 2x 80mm (Option)
Slot opening	7 or 15 x Full Height
Metal thickness	1.2mm
Net weight	9.5 kg
Gross weight	12.3 kg
Front bezel with air filter	Option
Cubic feet	3.44
Container info. (Single Packing)	20': 280, 40': 582, 40'H: 664

Physical Dimension

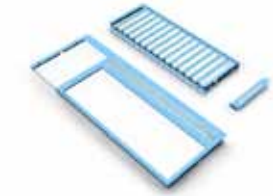


Unit: mm

Optional Configuration

Storage kits	2.5"or 3.5" HDD storage kits
Cable	3.5" Bracket with 2-port USB3.0 cable
Slide rail	26", Ball Bearing
Drive cage	3x 5.25" + 1x 3.5" Bays 2x 5.25" + 2x 3.5" Bays
Bezel	One-Door type
PSU	ATX 500W Power Supply Full range voltage: 110 ~ 240VAC

5.25" HDD Cage, 9PCS/CTN



Slot-Rear IO-KIT

Ordering Information

Model	M/B	Backplane	Cooling Fan (mm)	PCI Slot	PSU	Bezel	Slide Rail
CH070-ATX-4U	12" x 9.6"	N/A	1x 12025	7x FH	Option	2-door	Option

Wall Mount Industrial Chassis
PICMG Full-size Single Board Computing Type

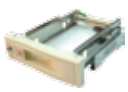
CH100-SBC-W

Specifications

Dimension (D x W X H)	408 x 330 x 175 mm (16.1" x 12.9" x 6.9")
Drive bay	External: 2 x 5.25", 1 x FDD, Internal: 1 x 3.5"
PSU form factor	PS/2 Single
Indicator	Power, 2x LAN, and HDD LEDs
Front control	Power On/ Off, System Reset, 1x USB 2.0
Cooling fan	1x 80 x 80mm fans
Slot opening	Support 10 /8 slots backplane
HDD backplane	N/A
Metal thickness	1.2mm
Net weight	6kg / 13.2 lbs
Gross weight	9kg / 19.8lbs (w/o PSU; w/o Rail)
Front bezelwith air filter	Option
Cubic feet	2.4
Color	Beige
Materials	SECC

Optional Configuration

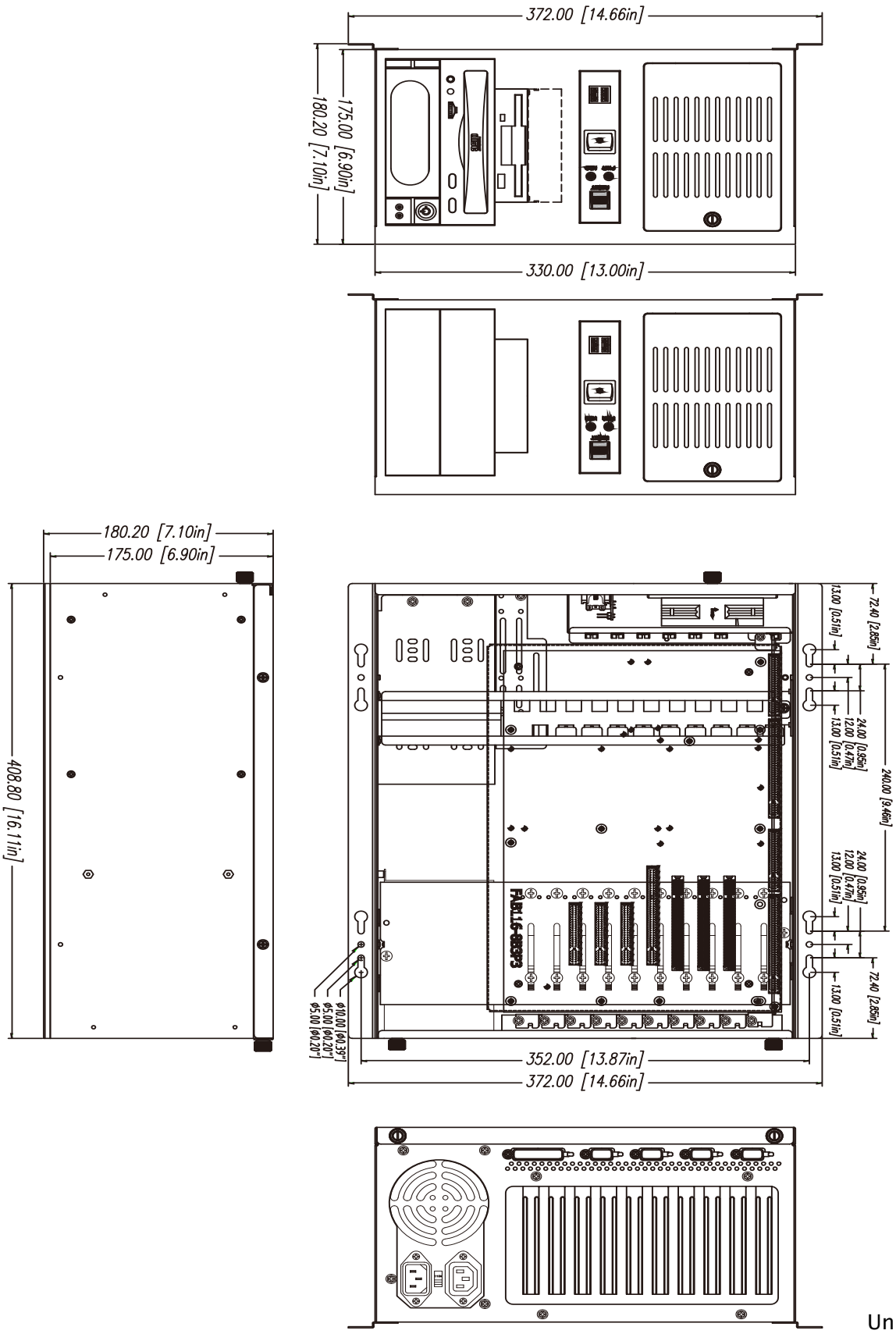
ATX Power supply	ATX 500W power supply (Meets ATX 12V V2.3 standard) Full range voltage: 110 ~ 240VAC 120mm ultra silent fan delivers efficient air flow
Drive bay	3.5" hot-swap driver bay



Ordering Information

Model	M/B	Backplane	Cooling Fan (mm)	PCI Slot	PSU	Bezel	Slide Rail
CH100-SBC-W	N/A	PICMG 1.3 / 1.0	1x 80 x 80mm	10 Slots	Option	N/A	Option

Physical Dimension



Unit: mm

Wall Mount Industrial Chassis
PICMG Full-size Single Board Computing Type

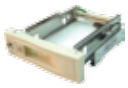
CH101-SBC-W

Specifications

Dimension (D x W X H)	408 x 330 x 175 mm (16.1" x 12.9" x 6.9")
Drive bay	External: 2 x 5.25", 1 x FDD" Internal: 1 x 3.5"
PSU form factor	PS/2 Single
Indicator	Power, LAN x2, and HDD LEDs
Front control	Power On/ Off, System Reset, 1x USB 2.0
Cooling fan	1x 80 x 80mm fans
Slot opening	Support 10 /8 slots backplane
Metal thickness	1.2mm
Net weight	6kg / 13.2 lbs
Gross weight	9kg / 19.8lbs (w/o PSU; w/o Rail)
Front bezelwith air filter	Option
Cubic feet	2.4
Color	Beige
Materials	SECC

Optional Configuration

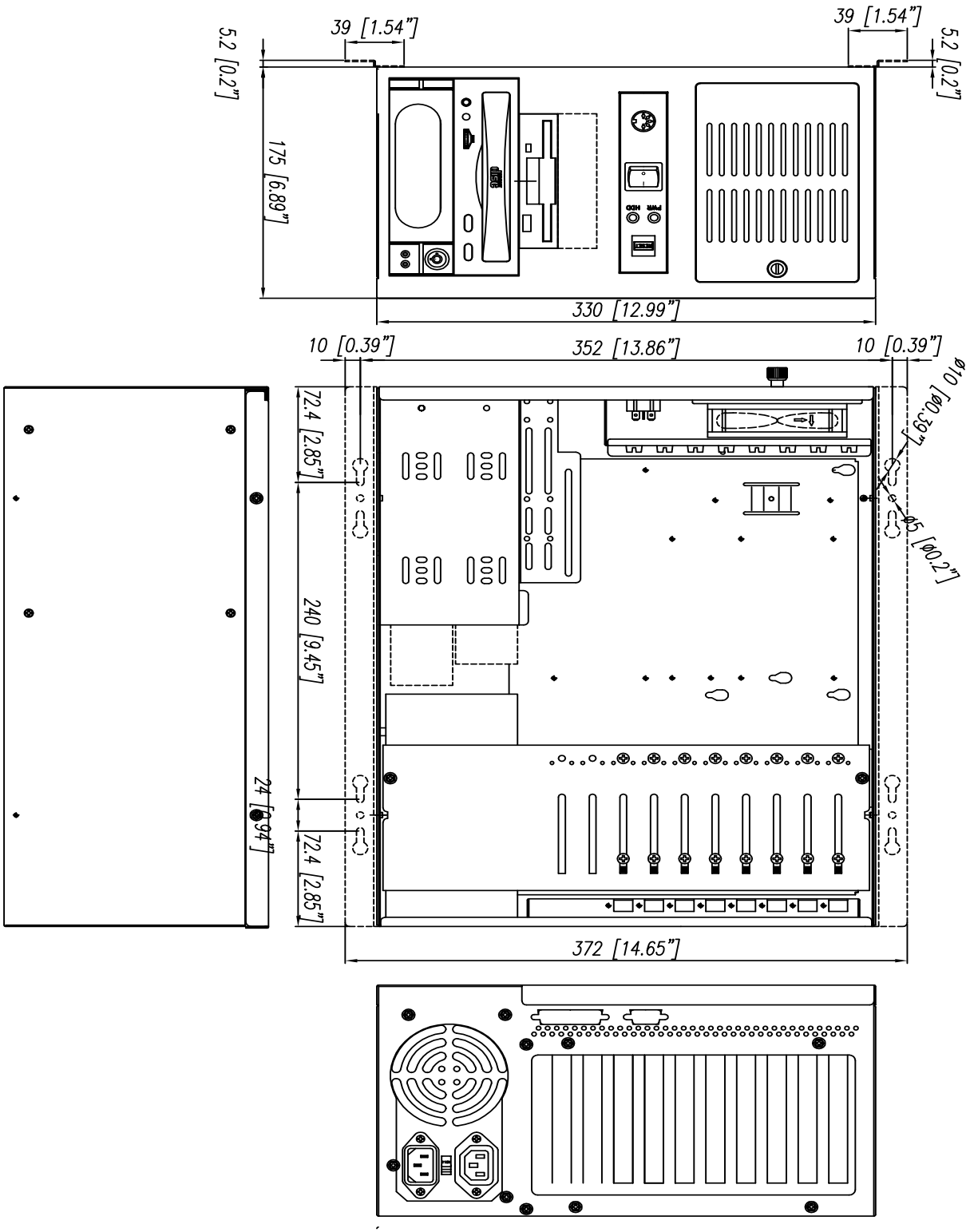
ATX Power supply	ATX 500W power supply (Meets ATX 12V V2.3 standard) Full range voltage: 110 ~ 240VAC 120mm ultra silent fan delivers efficient air flow
Drive bay	3.5" hot-swap driver bay



Ordering Information

Model	Backplane	Cooling Fan (mm)	PCI Slot	PSU	Bezel	Slide Rail
CH101-SBC-W	PICMG 1.3 / 1.0	1x 80 x 80mm	10 Slots	Option	N/A	Option

Physical Dimension



Unit: mm

Wall Mount Industrial PC Chassis
PICMG Full-size Single Board Computing Type

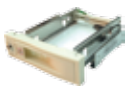
CH060-SBC-W

Specifications

Dimension (D x W X H)mm	410 x 254 x 175 (16.1" x 12.9" x 6.7")
Drive bay	External: 2 x 5.25", 1 x FDD", Internal: 1 x 3.5"
PSU form factor	PS/2 Single
Indicator	Power, 2x LAN, and HDD LEDs
Front control	Power On/ Off, System Reset, 1x USB 2.0
Cooling fan	1x 80 x 80mm fans
Slot opening	Support 6 slots backplane
Metal thickness	1.2mm
Net weight	6kg / 13.2 lbs
Gross weight	9kg / 19.8lbs (w/o PSU; w/o Rail)
Front bezel with air filter	Option
Cubic feet	2.4
Color	Beige
Materials	SECC

Optional Configuration

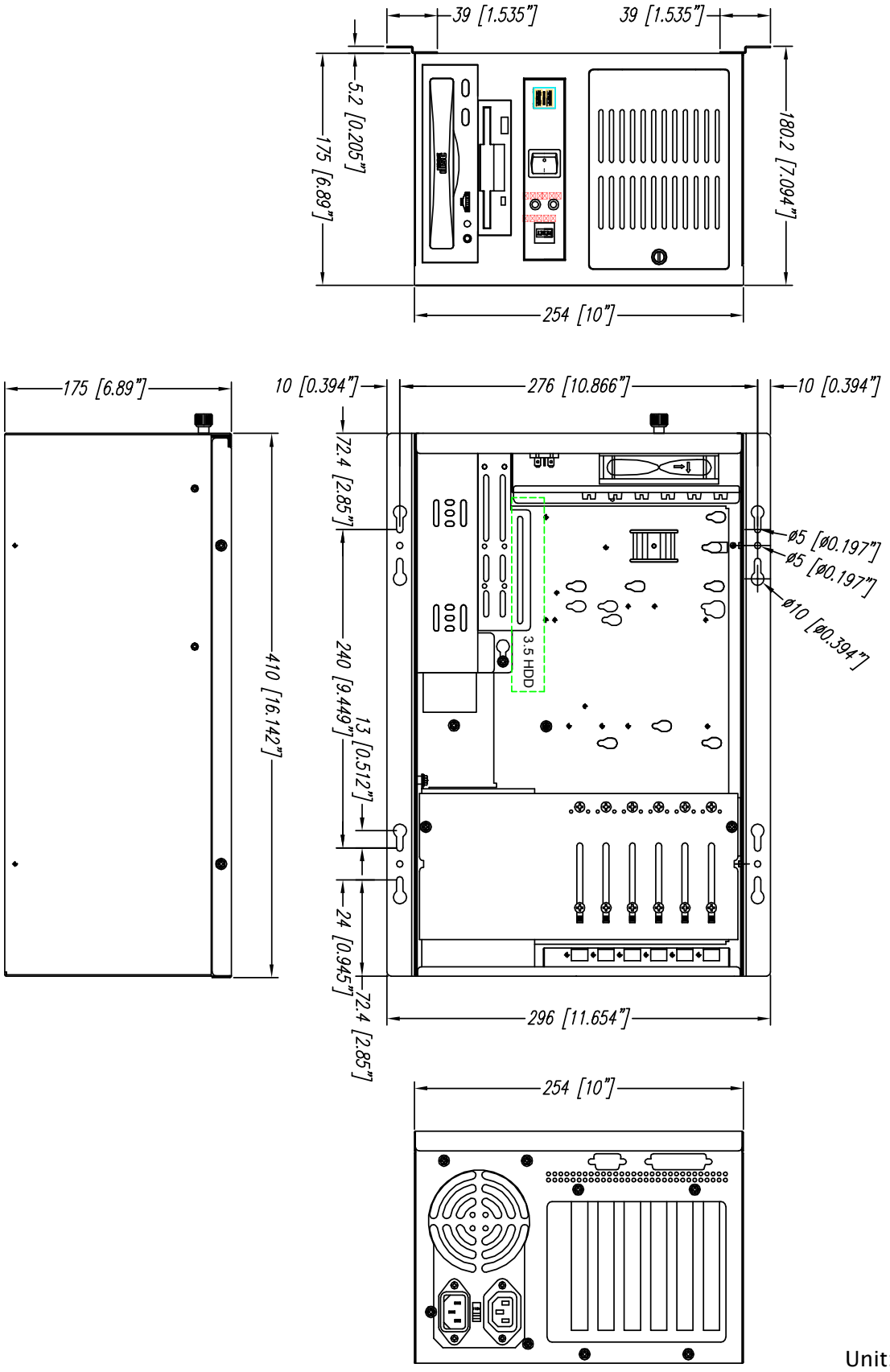
ATX Power supply	ATX 400W power supply (SSI-EPS 12V V2.2 and ATX 12V V2.2 version compatible) Full range voltage: 110 ~ 264VAC 80 mm ultra silent fan delivers efficient air flow
Drive bay	3.5" hot-swap driver bay



Ordering Information

Model	M/B	Backplane	Cooling Fan(mm)	PCI Slot	PSU	Bezel	Slide Rail
CH060-SBC-W	N/A	PICMG 1.3 / 1.0	1x 80 x 80mm	6 Slots	Option	N/A	Option

Physical Dimension



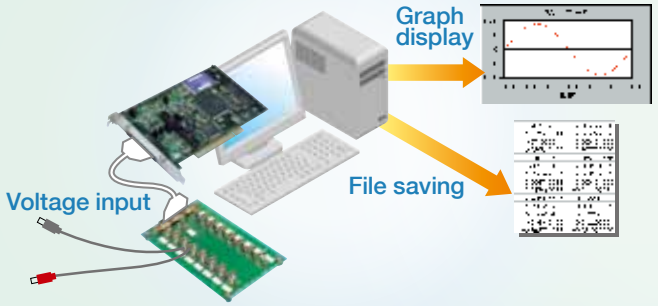
Unit: mm

DAQ, Measurement and Control

Offering Multi-Faceted I/O Product Lineup to Meet Your Needs

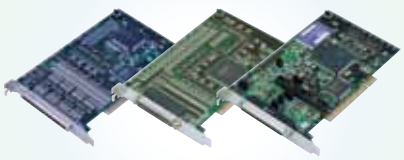
Contec's extensive I/O product line offers more than 400 custom designed, developed & manufactured boards. Utilized the fields of manufacturing, measurement and control; these products are essential for testing, automated examination instrumentation, and research and development.

Desktop PC



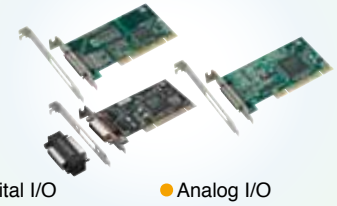
High-speed Systems with Local Bus

PCI Series



- Digital I/O
- Analog I/O
- Serial Communications
- GPIB Communications
- Counter
- Motor Control

Low Profile PCI Series

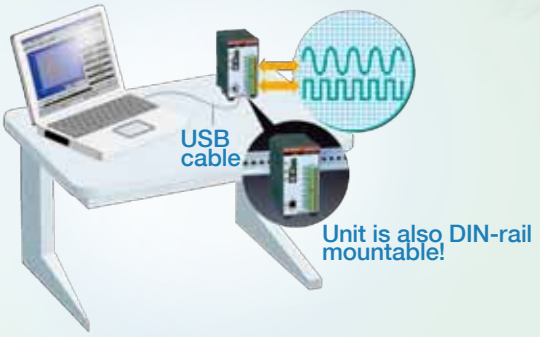


- Digital I/O
- Analog I/O
- Serial Communications
- GPIB Communications
- Counter

PCI Express Series

- Digital I/O
- Analog I/O
- Serial Communications
- GPIB Communications
- Counter
- Motor Control

Laptop



Bus Extension/ Conversion

Simple USB System

Wide-area System With Ethernet

PCI Bus Expansion System

- PCI Express to PCI
- PCI to PCI

USB Series

- Digital I/O
- Analog I/O
- Serial Communications
- Counter

Wire-Saving Remote I/O System

F&eIT

I/O Controller

- Digital I/O
- Analog I/O
- Counter
- Temperature Sensor Input

PCI | 37-pin D-SUB | Input 8 | Output 8 | Isolated | Digital Filter | Surge & Overcurrent Protection | CE | Windows Driver

Opto-Isolated Digital I/O
DIO-0808L-PCI

- 8 opto-isolated input, 8 opto-isolated open collector output
- Fast response time (within 200 µsecs)
- All input signals can be used as interrupts.
- Output transistor has built-in circuit protection (surge voltage, overcurrent)

Model		DIO-0808L-PCI
Input channels		8
Output channels		8 (one common)
Input specifications	Type	Opto-Isolated (for sink current output)
	Operating voltage	12 - 24 VDC (±10 %)
	Interrupts	16 interrupt signals combine into one interrupt request signal as INTA
	Resistance	4.7 kΩ
Output specifications	Type	Opto-Isolated Open Collector (Current sinking type)
	Rating	35 VDC(Max.), 100 mA(par channel) (Max.)
Response time (Max.)		Within 200 µsec
Internal power		-
Wiring distance		Approx. 50m (depending on wiring environment)
I/o address		Any 32-byte boundary
Power consumption (Max.)		5 VDC 90.5 mA
Bus / dimensions (mm)		PCI / 121.69 (L) x 105.68 (H)
Connector		37-pin D-SUB connector [F type] CLC-J37SAF-20L9E [JAE] or equivalent
Options	Software	API-PAC(W32)
	Accessories	DTP-3C*1, DTP-4C*1, EPD-37A*1*2, EPD-37*1
	Cables / connectors	PCA37P, PCB37P, PCA37PS, PCB37PS

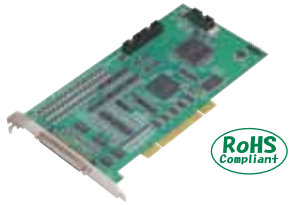
Note:
*1: Requires use of optional cable PCB37P or PCB37PS
*2: "Spring-up terminal unit" is employed to retain terminal screws.

As shown on the side of product's images, RoHS compliant is a CONTEC original marking for RoHS-compliant products.

PCI | 100-pin Half Pitch | Motion Control 4 axes | Frame Data Store | Limit Switch Input | Synchronization Control | Windows Driver

4 axes high-speed line driver output motion controller

SMC-4DFM-PCIS

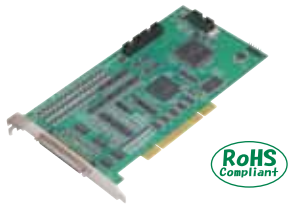


- Stepping and servo motors are easily controlled in familiar Windows environments.
- Capable of various control operations such as positioning, linear/circular interpolation, S-curve acceleration/deceleration, frame continuous operations, synchronization control, and so on.
- Every axis can store 1024 frames without applying any additional load on the CPU.
- Encoders compatible with Differential output, TTL-level output, Open collector output are provided.
- Adopted the Manual Pulser function. Output the pulse along the external pulse through the Manual Pulser.
- Connector shape and pin assignments are compatible with SMC-4DF-PCI, SMC-4DL-PCI. Synchronization control of up to 16 boards (128 axes) is possible, when dedicated synchronization control cables are connected.

PCI | 100-pin Half Pitch | Motion Control 8 axes | Frame Data Store | Limit Switch Input | Synchronization Control | Windows Driver

8 axes high-speed line driver output motion controller

SMC-8DFM-PCIS



- Stepping and servo motors are easily controlled in familiar Windows environments.
- Capable of various control operations such as positioning, linear/circular interpolation, S-curve acceleration/deceleration, frame continuous operations, synchronization control, and so on.
- Every axis can store 1024 frames without applying any additional load on the CPU.
- Encoders compatible with Differential output, TTL-level output, Open collector output are provided.
- Adopted the Manual Pulser function. Output the pulse along the external pulse through the Manual Pulser.
- Connector shape and pin assignments are compatible with SMC-8DF-PCI, SMC-8DL-PCI. Synchronization control of up to 16 boards (128 axes) is possible, when dedicated synchronization control cables are connected.

Model		SMC-4DFM-PCIS	SMC-8DFM-PCIS
Number of axes to control		4	8
Pulse output	Output signal system	2 Pulse types (pulse for positive/negative direction) or the common pulse type (pulse signal/directional signal) 90°C phase difference pulse (lead/lag pulse)	
	Output form	Un-isolated differential line driver output	
	Pulse Rate	0.1 - 6.5 Mpps	
	H Level Output voltage	2.5 V - 5.25 V	
	L Level Output voltage	0 V - 0.5 V	
Encoder input	Input signal type	Single-phase input (UP/DOWN/Z) / Phase input (A/B/Z)	
	Output type	Differential, TTL-level, Open Collector	
	Response frequency (Max.)	5MHz duty (When connecting the differential output, 2-phase Input, Multiply by 4, duty 50%) 3MHz duty (When connecting the TTL level output, 2-phase Input, Multiply by 4, duty 50%) 1MHz duty (When connecting the open-collector output, 2-phase Input, Multiply by 4, duty 50%)	
	Resistance	150Ω (Separable with SW)	
Limit Input signal	Signals	3channels/axis (original point, Forward limit, reserve limit)	
	Signal type	Opto-coupler input (corresponding to current sink output)	
	Resistance	4.7kΩ	
General-purpose input	Signals	7channels/axis	
	Signal type	Opto-coupler input (corresponding to current sink output)	
	Resistance	4.7kΩ	
General-purpose output	Signals	3channels/axis	
	Signal type	Un-isolated open collector output (current sink type) (Enables selecting the positive/negative logic by using the Software)	
	Rating	OUT1/2 50VDC, 100mA per 1ch, 240mA per 1axis OUT3 30VDC, 40mA per 1ch, 240mA per 1axis	
Controller chip		PCL6045B (Nippon Pulse Motor CO., LTD.) or equivalence to it	
Interrupts		1	
I/O Address		Any 128-byte boundary	
Current consumption (Max.) *2		5VDC 940mA	5VDC 1850mA
Bus / Dimensions (mm)		PCI (32-bit, 33MHz, Universal key shapes supported *1) / 195.71(L) x 106.68(H)	
Connector		HDRA-EC100LFDT+ [mfd by HONDA TSUSHIN KOGYO CO., LTD.] or equivalence to it	HDRA-E100W1LFDT1EC-SL+ [mfd by HONDA TSUSHIN KOGYO CO., LTD.] or equivalence to it
Options	Software	API-PAC(W32)	
	Accessories	CCB-SMC2 *3*4*5, EPD-100A *4*5*6	
	Cables / Connectors	PCB100PS, PCA100P	

Note:
*1: +5 V power must be supplied from PCI bus slot. (it does not work on a machine with a +3.3 V power supply alone).
*2: If it is supplied +5VDC from the CN4 or CN5 connectors to the external device, the power consumption of this board will be bigger than what this specification has defined."
*3: 1x 100-pin 0.8 mm pitch connector → 4x 37-pin D-SUB, 4x 9-pin D-SUB
*4: Requires use of optional cable PCB100PS
*5: Each connector needs cables and accessories.
*6: "Spring-up type terminal unit" is employed to retain terminal screws.

As shown on the side of product's images, RoHS compliant (RoHS Compliant) is a CONTEC original marking for RoHS-compliant products.

Memo

Memo

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